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AUTHORITY

usaec notice, 13 sep 1971

DR-421
MARCH 1969
AD

WHITE SANDS MISSILE RANGE

CLIMATE CALENDAR

BY

PAUL H. TAFT

ATMOSPHERIC SCIENCES OFFICE
WHITE SANDS MISSILE RANGE, NEW MEXICO

ECOM
UNITED STATES ARMY ELECTRONICS COMMAND

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REVISED, APRIL 1969

DA Task 1T665702D127-02

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ABSTRACT

This is the fourth edition of the White Sands Missile Range Climate Calendar, which was first published in May, 1963.

Mean daily maximum and minimum temperatures, and extreme temperatures for the period of record (1950-1968) are tabulated in calendar form for "A" Station, the weather center located at Headquarters, White Sands Missile Range, New Mexico. Averages of temperature, relative humidity, wind and cloudiness are included for each month, as well as maximum 24-hour and monthly rainfall.

Supplementary tables give monthly, seasonal and annual values of maximum winds, degree days, solar radiation, means and extremes of station pressure, the greatest monthly and single-storm snowfall, and the average six-hourly temperatures and relative humidities. Also included are the average number of days with the occurrence of precipitation, distant lightning, thunderstorms and visibility restrictions, as well as a summary of weather extremes for the State of New Mexico. Presented in graph form are weekly means of maximum and minimum temperatures, weekly values of precipitation, mean hourly and monthly wind speeds with prevailing directions, and average hourly variations from the mean station pressure.

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INTRODUCTION

The weather site designated as "A" Station is in the Headquarters area of White Sands Missile Range (WSMR). Its geographic coordinates are 32° 22.7' North and 106° 28.8' West (Fig. 1). The elevation of the Station Barometer is 4,238.4 feet above sea level. The climatological data in this report are for a period of 19 years, 1950 through 1968, unless otherwise indicated. (Daily temperature means and extremes only have been computed through February, 1969.) The station was initially operated by the Air Force, but since April 1961 it has been manned by U. S. Army personnel.

Temperature, wind, precipitation and relative humidity are measured with instruments mounted on the roof of the weather station building, No. 1510. (The elevation of the floor of the instrument shelter is 4252 feet.) However, since May 1955 wind measurements have been made by an Aerovane mounted on a 13-foot mast 0.5 mile west—279°—from the station, (elevation of Aerovane, 4,304.05 feet) with indicators and recorders for wind speed and direction installed in the weather station building.

Temperature extremes are the highest (maximum) and the lowest (minimum) temperatures which have occurred for each day of the year for the period of record. Temperatures are given in degrees Fahrenheit, wind speeds are in knots, and rainfall and snowfall are reported in inches. Daily temperature means were smoothed after comparison with weekly and monthly averages. (Fig. 3 and 4.)

The data in this report are considered to be representative of the Headquarters area. However, due to the great extent and extreme variations in elevation and topography of WSMR (4,000 square miles, from dry lake beds—"playas"—at 3,900 feet to mountain peaks near 9,000 feet, Fig. 1 and 2) conditions in other parts of the range may vary widely. For example, the record low temperature for this station is 6° below zero, while at White Sands National Monument it is 25° below zero, and both of these records occurred on the same date—11 January 1962. (See Table IV.) Also, severe local thunderstorms may produce torrential rainfall in a comparatively small area with little or no rainfall a few miles distant. On 4 July 1961, 1.80" of rain fell in 48 minutes at "A" Station and the 24-hour total was 2.31", while at Orogrande [1], 24 miles east, the total rainfall for that day was only 0.02".

The greatest 24-hour rainfall of record on the Range occurred at White Sands National Monument [2] on 21-22 September 1941, with a fall of 5.30". Of this amount, 4.28" fell in five hours—1430-1930 MST, 21 September. This, however, was a general storm, with rainfall totals at a few other stations on or near WSMR as follows: [2 & 3] Alamogordo, 2.60"; El Paso Airport, 3.42"; Las Cruces, 4.61"; Orogrande, 3.27", Tularosa, 4.75". The greatest 24-hour rainfall of record at "A" Station is 4.25", which fell on 23-24 August 1959. (See Table III.)

DISCUSSION

COLD SEASON (NOVEMBER-APRIL) WEATHER

December and January are coldest months, with identical mean temperatures. (See Table I.) February averages nearly 3° warmer, but it has the same low temperature record as December. The record low temperature, (-6°) occurred on 11 January 1962, when absolute record minima were established at most stations in southern New Mexico, during an extremely severe cold spell. (See Table IV.)

The average number of days with minimum temperatures at or below freezing is 38, and with 20° or less is only three. The earliest date of the last freezing temperature in spring occurred on 14 February 1950 (see Table VIII), while the earliest date of a 90° temperature was 14 April 1963. The record high temperature for the cold season—94°—was recorded on 22 April 1965. The average date of the last freezing temperature in the Spring is 14 March, and of the first freeze in the Fall is 20 November.

Mean maximum and minimum temperatures for April are within 0.2° of the annual means. A comparison of "A" Station with 141 Weather Bureau Climatological stations in New Mexico [4], shows that the mean minimum temperature of "A" Station for the coldest month (34.3°) is 0.4° higher than that of Carlsbad Caverns, which has the highest winter month minimum temperatures of any of the New Mexico Weather Bureau stations.

Only 30% of the annual rainfall occurs during the cold season, and April (the second driest month) and November (the third driest) altogether account for only 7% of the annual total. This 6-month period averages only three days with the occurrence of thunderstorms out of the annual total of 44 days. The three coldest months receive 77% of the annual snowfall total of 5.9 inches.

April, the windiest month of the year, has an average hourly wind speed of 8.5 knots. Visibility is reduced to 6 miles or less (by fog, snow, blowing dust, etc.) on an average of 23 days during this season. Five of these days occur in March and four in April, while the total for the year is 39 days. (See Table VII.)

WARM SEASON (MAY-OCTOBER) WEATHER

Although June and July are the warmest months, August is only slightly cooler (see Table II). The average number of days with a temperature of 100° or more is only 7, three each in June and July, and one in August. Only in occasional years do such high temperatures occur in May, and none have been recorded in September at this station. The greatest number of successive days with 100° or more is 8, from 26 June to 3 July 1960. However, 18 successive days with 99° or more occurred from 24 June to 11 July 1951. It was during these two periods that the absolute record high temperature of 106° occurred four times.

Maximum temperatures at Desert Station (near Army Block House) average about 1.2° higher than at "A" Station during the summer months, so that 100° temperatures can be expected in that area on an average of about 12 days each summer. At Orogrande, about 24 miles east of WSMR Headquarters, summer temperatures average about four degrees higher than at this station, and the absolute record high temperature for Orogrande--116°--equals the record high temperature for the entire state of New Mexico. (See Table V).

The lowest maximum temperature of occurrence for any year was in 1959 when 99° was recorded only twice. The average number of days with maximum temperatures of 90° or more is 84, sixty-seven of which occur during the three warmest months. The earliest date of a 95° reading was 11 May 1962, and the average date is 2 June. The latest occurrence of 95° in late summer was on 27 September 1951, and the average date is 4 September, while there are thirty-six days per year when a maximum of 95° or more is recorded. October mean temperatures are within two degrees of the annual means.

May (the driest month) and June are, on the average, quite dry. Collectively, they contribute only 11% of the total annual rainfall. July, August and September, the wettest months of the year, account for 50% of the average annual rainfall of 10.32", and for 66% of the thunderstorms. Seventy percent of the annual rainfall occurs during the warm season and all but three of the 44 days with thunderstorms. The greatest monthly rainfall of record at this station--7.42"--occurred in June, 1966. The driest year of record was 1956, with a rainfall total of only 3.92", (Table III).

October, with an average hourly wind speed of 4.6 knots, is the least windy month of the year, while the annual average is 6.1 knots. The prevailing wind direction for 11 of the 12 months is west, but for July it is southeast. Visibility of 6 miles or less occurs on 16 days during the warm season.

COLDEST PERIODS	TEMPERATURES (° F)				
	MEAN MAX	MEAN MIN	MEAN	HIGH-EST	LOW-EST
MONTH OF DECEMBER	55.7	34.4	45.1	77	8
MONTH OF JANUARY	55.9	34.3	45.1	73	-6
MONTH OF FEBRUARY	59.9	37.6	48.8	81	8
COLDEST 30 DAYS, 12/20 to 1/18	54.3	32.6	43.5	73	-6
COLDEST 15 DAYS, 1/3 to 1/17	54.1	32.2	43.2	73	-6
COLDEST 7 DAYS, 1/8 to 1/14	53.7	32.0	42.9	73	-6

TABLE I. TEMPERATURES DURING COLDEST MONTHS, "A" STATION

WARMEST PERIODS	TEMPERATURES (° F)				
	MEAN MAX	MEAN MIN	MEAN	HIGH-EST	LOW-EST
MONTH OF JUNE	92.9	69.2	81.1	106	50
MONTH OF JULY	93.2	70.5	82.0	106	59
MONTH OF AUGUST	91.1	68.9	80.0	102	55
WARMEST 30 DAYS, 6/18 to 7/17	94.4	71.0	82.7	106	59
WARMEST 15 DAYS, 6/19 to 7/3	95.2	71.5	83.4	106	59
WARMEST 7 DAYS, 6/22 to 6/28	95.5	72.2	83.9	106	62

TABLE II. TEMPERATURES DURING WARMEST MONTHS, "A" STATION

The following tabulations show the precipitation extremes (greatest and least) of record for White Sands Missile Range and vicinity:

PRECIPITATION EXTREMES, "A" STATION, WHITE SANDS MISSILE RANGE

0.38 inch	8 minutes	1412-1420MST, 27 July 1965
1.80 inch	48 minutes	1530-1618MST, 4 July 1961
2.92 inches	2½ hours	0050-0320MST, 24 August, 1959
3.17 inches	6 hours	2245-0445MST, 23-24 August, 1959
3.72 inches	12 hours	1645-0445MST, 23-24 August, 1959
4.25 inches	24 hours	2210-1925MST, 23-24 August, 1959

Greatest annual rainfall:	20.02 inches in 1958.
Least annual rainfall:	3.92 inches in 1956.
Longest dry spell (no measureable rainfall):	123 days, 2/11-6/11, 1956.
Second longest dry spell:	80 days, 10/8-12/26, 1954.
Greatest seasonal snowfall:	24.5 inches, 1967-1968.
Greatest annual snowfall:	18.5 inches, 1960.

HEAVIEST RAINFALL OF RECORD, WHITE SANDS NATIONAL MONUMENT [3]

0.95 inch	30 minutes	4.28 inches	5 hours
1.50 inch	1 hour	4.40 inches	6 hours
2.50 inches	2 hours	5.17 inches	12 hours
3.50 inches	3 hours	5.30 inches	24 hours, 9/21-22/41

PRECIPITATION EXTREMES, NEW MEXICO STATE UNIVERSITY, LAS CRUCES [8]

Extremely heavy rainfall occurred at the University station from 11:05pm 29 Aug. to 7:00am 30 Aug., 1935, measured as follows:

0.64 inch	5 minutes	2.77 inches	60 minutes
1.06 inch	10 minutes	4.15 inches	2 hours
1.50 inch	15 minutes	4.77 inches	3 hours
1.86 inch	20 minutes	5.91 inches	4 hours
2.48 inches	30 minutes	6.46 inches	7 hours 55 minutes

Greatest 24-hour rainfall:	6.49 inches, 29-30 August, 1935
Greatest monthly rainfall:	7.53 inches, September, 1941

WETTEST AND DRIEST YEARS, NEW MEXICO STATE UNIVERSITY

15.05 inches in 1881, La Mesilla	13.26 inches in 1931, NMSU
17.09 inches in 1905, NMSU	19.60 inches in 1941, NMSU
14.35 inches in 1926, NMSU	14.01 inches in 1958, NMSU
3.61 inches in 1860, Ft. Fillmore	4.02 inches in 1910, NMSU
3.49 inches in 1873, Ft. Selden	3.81 inches in 1953, NMSU
4.47 inches in 1892, NMSU	3.62 inches in 1964, NMSU

HEAVIEST SNOWFALL OF RECORD, NEW MEXICO STATE UNIVERSITY

	Greatest Monthly	Greatest 24-hours
January	4.7 inches in 1947	4.7 inches in 1947
February	10.4 inches in 1956	9.0 inches in 1956
March	2.7 inches in 1944	2.7 inches in 1944
November	5.0 inches in 1957	5.0 inches in 1957
December	10.3 inches in 1931	9.0 inches in 1931

TABLE III. PRECIPITATION EXTREMES, WSMR AND VICINITY

WEATHER EXTREMES IN NEW MEXICO

On rare occasions an extremely cold arctic air mass invades southern New Mexico, bringing record-breaking low temperatures. Such an event occurred on the 10th and 11th of January, 1962. It was the most severe outbreak of polar continental air in many years and tumbled old low temperature records for most stations in south-central New Mexico, some of which had stood for more than a half-century. Table IV lists these new absolute minimum temperature records.

STATION	TEMPERATURE, °F
"A" STATION, WHITE SANDS MISSILE RANGE	-6
ALAMOGORDO	-14
BINGHAM	-12
BOSQUE DEL APACHE	-16
CARRIZOZO	-12
CLOUDCROFT	-21
DESERT STATION (MSD), WSMR	-14
FLORIDA	-15
FORT STANTON	-28
HATCH	-17
HOLLOMAN AIR FORCE BASE	-11
LORDSBURG	-2
MESCALERO	-19
NEW MEXICO STATE UNIVERSITY, LAS CRUCES	-10
OROGRANDE	-13
SUNSPOT (SACRAMENTO PEAK) [7]	-23
SILVER CITY	-13
WHITE SANDS NATIONAL MONUMENT	-25

TABLE IV. NEW MINIMUM TEMPERATURE RECORDS IN SOUTHERN NEW MEXICO DUE TO SEVERE COLD SPELL OF 10-11 JANUARY, 1962 [4]

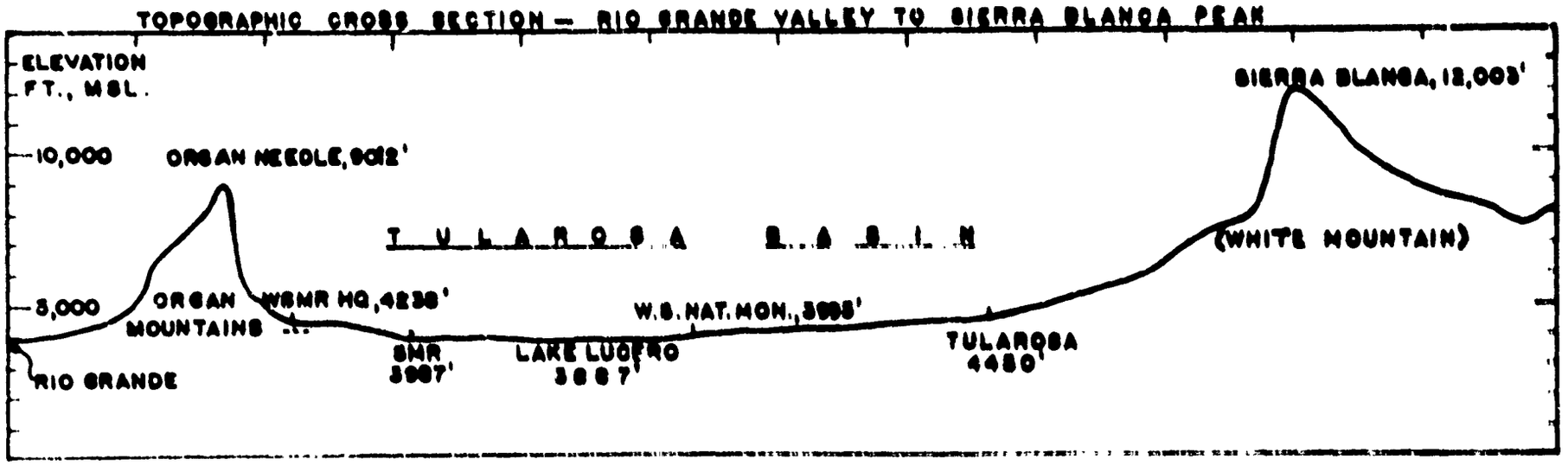
Tables V and VI are listings of weather extremes which give an indication of the great variations of climate which are encountered in New Mexico. Only twelve of the fifty states have recorded lower temperatures than New Mexico's -50°, while eighteen states have endured summer temperatures exceeding our record of 116°. With a seasonal snowfall record of 483 inches, New Mexico ranks seventh among the fifty states; Washington ranks first, with exactly one thousand inches. [9]

MONTH	HIGHEST TEMPERATURE				LOWEST TEMPERATURE			
	°F	DAY	YEAR	STATION	°F	DAY	YEAR	STATION
JAN	89	6	1938	Tularosa	-47	11	1962	Eagle Nest
FEB	100	24	1904	Carlsbad	-50	1	1951	Gavilan
MAR	99	31	1946	Roswell #2	-34	12	1948	Eagle Nest
APR	104	10	1934	Artesia	-36	5	1945	Eagle Nest
MAY	110	28	1896	Rincon	-2	1	1967	Eagle Nest
JUN	116	29	1918	Artesia	12	1	1946	E'town *
JUL	116	14	1934	Orogrande	19	5	1935	Therma
AUG	111	7	1934	Mara Vista	23	30	1944	Selmor Ranch
	111	23	1932	Rodeo				
SEP	112	7	1948	Orogrande	8	23	1912	E'town *
OCT	101	5	1934	Carlsbad	-15	24	1945	Red River
NOV	97	7	1903	Carlsbad	-36	24	1931	Gavilan
					-36	25	1931	Dulce
DEC	90	12	1933	Hagerman	-47	12	1961	Dulce

TABLE V. NEW MEXICO TEMPERATURE EXTREMES BY MONTHS, 1892-1968 [5]
* E'town = Elizabethtown (near Eagle Nest)

EXTREMES		INCHES	LOCATION	DATE
ANNUAL RAINFALL	Greatest	62.45	White Tail	1941
	Least	1.00	Hermanas	1910
GREATEST RAINFALL	1-Month	16.21	Portales 7 WNW	May 1941
	24-Hour	11.28	Lake Maloya	19 May 1955
GREATEST SNOWFALL	Seasonal	483.0	Anchor Mine	1911-1912
	Annual	415.7	Anchor Mine	1915
	1-Month	144.0	Anchor Mine	March 1912
	Single-Storm	40.0	Corona	14-16 Dec. 1959
	24-Hour	30.0	Sandia Crest	29 Dec. 1958
	Greatest Depth	90.0	Anchor Mine	28 Mar. 1912

TABLE VI. NEW MEXICO RAINFALL AND SNOWFALL EXTREMES, 1892-1968 [5]



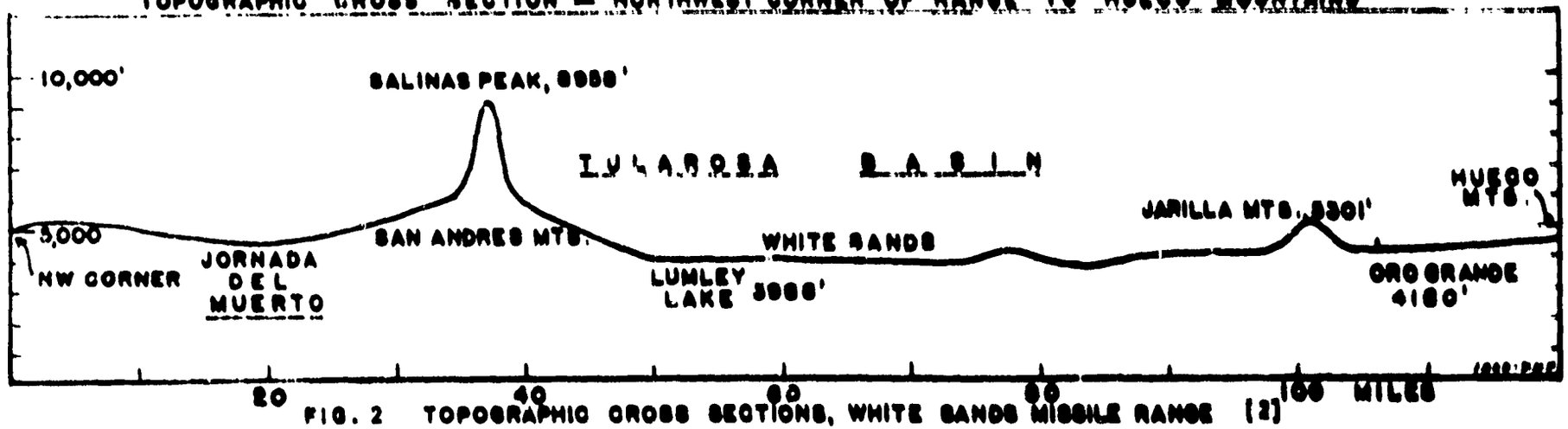


FIG. 2 TOPOGRAPHIC CROSS SECTIONS, WHITE SANDS MISSILE RANGE [2]

"A" STATION, WHITE SANDS MISSILE RANGE

DAILY TEMPERATURE MEANS AND EXTREMES, WITH YEAR OF OCCURRENCE

MONTHLY SUMMARY OF AVERAGE CLIMATOLOGICAL DATA, WITH RAINFALL EXTREMES

JANUARY

1	2	3	4	5	6	7
AVG. HIGH 54	AVG. HIGH 54	AVG. HIGH 54	AVG. HIGH 54	AVG. HIGH 54	AVG. HIGH 54	AVG. HIGH 54
HIGHEST 62	HIGHEST 64	HIGHEST 61	HIGHEST 61	HIGHEST 67	HIGHEST 69	HIGHEST 71
YEAR 1956	YEAR 1964	YEAR 1954	YEAR 1965	YEAR 1965	YEAR 1965	YEAR 1969
AVG. LOW 33	AVG. LOW 33	AVG. LOW 33	AVG. LOW 33	AVG. LOW 32	AVG. LOW 32	AVG. LOW 32
LOWEST 23	LOWEST 26	LOWEST 21	LOWEST 22	LOWEST 24	LOWEST 21	LOWEST 20
YEAR 1954	YEAR 1958	YEAR 1967	YEAR 1967	YEAR 1952	YEAR 1964	YEAR 1950
8	**9**	**10**	**11** *	**12**	**13**	**14**
AVG. HIGH 54	AVG. HIGH 54	AVG. HIGH 54	AVG. HIGH 54	AVG. HIGH 54	AVG. HIGH 54	AVG. HIGH 55
HIGHEST 70	HIGHEST 68	HIGHEST 73	HIGHEST 69	HIGHEST 72	HIGHEST 71	HIGHEST 70
YEAR 1969	YEAR 1953	YEAR 1953	YEAR 1953	YEAR 1953	YEAR 1953	YEAR 1969
AVG. LOW 32	AVG. LOW 32	AVG. LOW 32	AVG. LOW 32	AVG. LOW 32	AVG. LOW 32	AVG. LOW 32
LOWEST 18	LOWEST 14	LOWEST -2	LOWEST -6	LOWEST +4	LOWEST +8	LOWEST 11
YEAR 1967	YEAR 1967	YEAR 1962	YEAR 1962	YEAR 1962	YEAR 1963	YEAR 1964
15	**16**	**17**	**18**	**19**	**20**	**21**
AVG. HIGH 55	AVG. HIGH 55	AVG. HIGH 56	AVG. HIGH 56	AVG. HIGH 56	AVG. HIGH 57	AVG. HIGH 57
HIGHEST 67	HIGHEST 69	HIGHEST 65	HIGHEST 68	HIGHEST 70	HIGHEST 70	HIGHEST 70
YEAR 1957	YEAR 1967	YEAR 1950	YEAR 1952	YEAR 1959	YEAR 1950	YEAR 1967
AVG. LOW 33	AVG. LOW 33	AVG. LOW 34	AVG. LOW 34	AVG. LOW 35	AVG. LOW 35	AVG. LOW 36
LOWEST 19	LOWEST 21	LOWEST 22	LOWEST 23	LOWEST 22	LOWEST 16	LOWEST 21
YEAR 1964	YEAR 1964	YEAR 1964	YEAR 1960	YEAR 1963	YEAR 1963	YEAR 1963
22	**23**	**24**	**25**	**26**	**27**	**28**
AVG. HIGH 57	AVG. HIGH 58	AVG. HIGH 58	AVG. HIGH 59	AVG. HIGH 59	AVG. HIGH 60	AVG. HIGH 60
HIGHEST 73	HIGHEST 73	HIGHEST 72	HIGHEST 72	HIGHEST 73	HIGHEST 68	HIGHEST 67
YEAR 1967	YEAR 1950	YEAR 1950	YEAR 1952	YEAR 1953	YEAR 1969	YEAR 1967
AVG. LOW 36	AVG. LOW 37	AVG. LOW 37	AVG. LOW 38	AVG. LOW 38	AVG. LOW 38	AVG. LOW 38
LOWEST 13	LOWEST 16	LOWEST 18	LOWEST 22	LOWEST 22	LOWEST 21	LOWEST 24
YEAR 1966	YEAR 1966	YEAR 1963	YEAR 1963	YEAR 1966	YEAR 1966	YEAR 1963
29	**30**	**31**				
AVG. HIGH 60	AVG. HIGH 60	AVG. HIGH 60				
HIGHEST 73	HIGHEST 73	HIGHEST 72				
YEAR 1967	YEAR 1967	YEAR 1967				
AVG. LOW 38	AVG. LOW 38	AVG. LOW 38				
LOWEST 28	LOWEST 20	LOWEST 16				
YEAR 1955	YEAR 1951	YEAR 1951				

AVG. MAXIMUM TEMPERATURE	55.9 °	AVG. WIND SPEED	5.7 KNOTS
AVG. MINIMUM TEMPERATURE	34.1 °	PREVAILING WIND DIR.	WEST
RECORD HIGH TEMPERATURE	73 °	AVERAGE RAINFALL	0.46 IN.
RECORD LOW TEMPERATURE	* -6 °	AVERAGE SNOWFALL	0.5 IN.
AVG. RELATIVE HUMIDITY	46 %	AVERAGE CLOUDINESS	41 %
GREATEST MONTHLY RAINFALL	1.50 IN., YEAR 1960		
GREATEST 24-HOUR RAINFALL	0.96 IN., YEAR 1960, DATE 11th		

*ABSOLUTE RECORD LOW TEMPERATURE AT STATION. GREATEST JANUARY SNOWFALL: 5.5 in. in 1968. (SEE TABLE VII.)

FEBRUARY

MONTHLY SUMMARY OF AVERAGE CLIMATOLOGICAL DATA, WITH EARLIEST MAXIMUM

FEBRUARY

1 *	2	3	4	5	6	7
AVG. HIGH 60	AVG. HIGH 60	AVG. HIGH 59	AVG. HIGH 59	AVG. HIGH 59	AVG. HIGH 60	AVG. HIGH 60
HIGHEST 79	HIGHEST 71	HIGHEST 72	HIGHEST 76	HIGHEST 77	HIGHEST 76	HIGHEST 74
YEAR 1963	YEAR 1963	YEAR 1953	YEAR 1963	YEAR 1963	YEAR 1963	YEAR 1963
AVG. LOW 37	AVG. LOW 37	AVG. LOW 37	AVG. LOW 36	AVG. LOW 36	AVG. LOW 36	AVG. LOW 37
LOWEST +8	LOWEST +9	LOWEST 13	LOWEST 14	LOWEST 24	LOWEST 22	LOWEST 22
YEAR 1951	YEAR 1951	YEAR 1956	YEAR 1956	YEAR 1955	YEAR 1955	YEAR 1964
8	**9**	**10**	**11 ***	**12**	**13**	**14 ****
AVG. HIGH 60	AVG. HIGH 60	AVG. HIGH 59	AVG. HIGH 59	AVG. HIGH 59	AVG. HIGH 59	AVG. HIGH 59
HIGHEST 78	HIGHEST 75	HIGHEST 76	HIGHEST 81	HIGHEST 78	HIGHEST 77	HIGHEST 80
YEAR 1957	YEAR 1962	YEAR 1962	YEAR 1957	YEAR 1962	YEAR 1957	YEAR 1957
AVG. LOW 37	AVG. LOW 37	AVG. LOW 37	AVG. LOW 37	AVG. LOW 37	AVG. LOW 37	AVG. LOW 37
LOWEST 25	LOWEST 18	LOWEST 22	LOWEST 17	LOWEST 16	LOWEST 18	LOWEST 21
YEAR 1967	YEAR 1967	YEAR 1956	YEAR 1963	YEAR 1963	YEAR 1963	YEAR 1965
15	**16**	**17**	**18**	**19**	**20**	**21**
AVG. HIGH 59	AVG. HIGH 59	AVG. HIGH 59	AVG. HIGH 59	AVG. HIGH 59	AVG. HIGH 59	AVG. HIGH 60
HIGHEST 71	HIGHEST 72	HIGHEST 72	HIGHEST 74	HIGHEST 73	HIGHEST 73	HIGHEST 69
YEAR 1961	YEAR 1959	YEAR 1958	YEAR 1958	YEAR 1958	YEAR 1968	YEAR 1968
AVG. LOW 37	AVG. LOW 37	AVG. LOW 37	AVG. LOW 37	AVG. LOW 37	AVG. LOW 37	AVG. LOW 37
LOWEST 20	LOWEST 25	LOWEST 24	LOWEST 26	LOWEST 22	LOWEST 21	LOWEST 20
YEAR 1951	YEAR 1966	YEAR 1966	YEAR 1960	YEAR 1955	YEAR 1955	YEAR 1964
22	**23**	**24**	**25**	**26**	**27**	**28**
AVG. HIGH 60	AVG. HIGH 60	AVG. HIGH 60	AVG. HIGH 61	AVG. HIGH 61	AVG. HIGH 62	AVG. HIGH 62
HIGHEST 75	HIGHEST 73	HIGHEST 73	HIGHEST 75	HIGHEST 72	HIGHEST 73	HIGHEST 72
YEAR 1954	YEAR 1956	YEAR 1968	YEAR 1954	YEAR 1961	YEAR 1968	YEAR 1950
AVG. LOW 38	AVG. LOW 38	AVG. LOW 38	AVG. LOW 39	AVG. LOW 39	AVG. LOW 40	AVG. LOW 40
LOWEST 23	LOWEST 24	LOWEST 16	LOWEST 14	LOWEST 29	LOWEST 33	LOWEST 25
YEAR 1955	YEAR 1965	YEAR 1960	YEAR 1960	YEAR 1952	YEAR 1964	YEAR 1964
29						
AVG. HIGH 62						
HIGHEST 67						
YEAR 1956						
AVG. LOW 40						
LOWEST 29						
YEAR 1956						

AVERAGE MAXIMUM TEMPERATURE	59.9	°	AVERAGE MONTHLY WIND SPEED	6.5	K	ANNUAL	6.1 K
AVERAGE MINIMUM TEMPERATURE	37.6	°	PREVAILING WIND DIRECTION	West		ANNUAL	West
RECORD MAXIMUM TEMPERATURE	81	°	AVERAGE MONTHLY RAINFALL	0.60	IN.	ANNUAL	10.32 IN.
RECORD MINIMUM TEMPERATURE*	+8	°	AVERAGE MONTHLY SNOWFALL	1.5	IN.	ANNUAL	5.9 IN.
AVERAGE RELATIVE HUMIDITY	39	%	AVERAGE MONTHLY CLOUDLINESS	36	%	ANNUAL	36 %
GREATEST MONTHLY RAINFALL	1.44	IN., YEAR 1957					
GREATEST 24-HOUR RAINFALL	1.01	IN., YEAR 1951, DATE 28th					

** 14th: EARLIEST DATE OF LAST FREEZING TEMPERATURE IN SPRING, 1950.

"A" STATION, WHITE SANDS MISSILE RANGE

DAILY TEMPERATURE MEANS AND EXTREMES, WITH YEAR OF OCCURRENCE

MONTHLY SUMMARY OF AVERAGE CLIMATOLOGICAL DATA, WITH RAINFALL EXTREMES

MARCH

1	2	3	4	5	6	7
AVG. HIGH 62	AVG. HIGH 62	AVG. HIGH 63	AVG. HIGH 63	AVG. HIGH 64	AVG. HIGH 64	AVG. HIGH 64
HIGHEST 73	HIGHEST 77	HIGHEST 75	HIGHEST 74	HIGHEST 75	HIGHEST 81	HIGHEST 80
YEAR 1959	YEAR 1967	YEAR 1967	YEAR 1956	YEAR 1960	YEAR 1960	YEAR 1960
AVG. LOW 40	AVG. LOW 40	AVG. LOW 40	AVG. LOW 41	AVG. LOW 41	AVG. LOW 42	AVG. LOW 42
LOWEST 27	LOWEST 24	LOWEST 32	LOWEST 16	LOWEST 22	LOWEST 29	LOWEST 31
YEAR 1960	YEAR 1965	YEAR 1965	YEAR 1965	YEAR 1966	YEAR 1953	YEAR 1959
8	**9**	**10**	**11**	**12**	**13**	**14** ***
AVG. HIGH 64	AVG. HIGH 64	AVG. HIGH 64	AVG. HIGH 64	AVG. HIGH 64	AVG. HIGH 65	AVG. HIGH 65
HIGHEST 81	HIGHEST 78	HIGHEST 77	HIGHEST 74	HIGHEST 77	HIGHEST 76	HIGHEST 78
YEAR 1960	YEAR 1960	YEAR 1966	YEAR 1966	YEAR 1967	YEAR 1960	YEAR 1966
AVG. LOW 42	AVG. LOW 42	AVG. LOW 42	AVG. LOW 42	AVG. LOW 42	AVG. LOW 42	AVG. LOW 43
LOWEST 28	LOWEST 30	LOWEST 32	LOWEST 31	LOWEST 27	LOWEST 30	LOWEST 28
YEAR 1956	YEAR 1964	YEAR 1958	YEAR 1968	YEAR 1958	YEAR 1951	YEAR 1962
15	**16**	**17**	**18**	**19**	**20**	**21**
AVG. HIGH 65	AVG. HIGH 66	AVG. HIGH 66	AVG. HIGH 66	AVG. HIGH 66	AVG. HIGH 67	AVG. HIGH 67
HIGHEST 80	HIGHEST 77	HIGHEST 81	HIGHEST 82	HIGHEST 78	HIGHEST 79	HIGHEST 77
YEAR 1966	YEAR 1966	YEAR 1967	YEAR 1967	YEAR 1966	YEAR 1966	YEAR 1960
AVG. LOW 43	AVG. LOW 43	AVG. LOW 43	AVG. LOW 44	AVG. LOW 44	AVG. LOW 44	AVG. LOW 44
LOWEST 21	LOWEST 29	LOWEST 32	LOWEST 32	LOWEST 23	LOWEST 26	LOWEST 29
YEAR 1962	YEAR 1962	YEAR 1960	YEAR 1951	YEAR 1965	YEAR 1965	YEAR 1955
22	**23**	**24**	**25**	**26**	**27**	**28** #
AVG. HIGH 68	AVG. HIGH 68	AVG. HIGH 68	AVG. HIGH 69	AVG. HIGH 69	AVG. HIGH 70	AVG. HIGH 70
HIGHEST 80	HIGHEST 79	HIGHEST 80	HIGHEST 81	HIGHEST 80	HIGHEST 83	HIGHEST 86
YEAR 1967	YEAR 1950	YEAR 1950	YEAR 1953	YEAR 1956	YEAR 1963	YEAR 1967
AVG. LOW 45	AVG. LOW 45	AVG. LOW 46	AVG. LOW 46	AVG. LOW 46	AVG. LOW 47	AVG. LOW 47
LOWEST 26	LOWEST 28	LOWEST 37	LOWEST 32	LOWEST 23	LOWEST 23	LOWEST 28
YEAR 1952	YEAR 1952	YEAR 1966	YEAR 1957	YEAR 1955	YEAR 1955	YEAR 1955
29 ***	**30**	**31**				
AVG. HIGH 71	AVG. HIGH 71	AVG. HIGH 72				
HIGHEST 80	HIGHEST 78	HIGHEST 82				
YEAR 1967	YEAR 1968	YEAR 1963				
AVG. LOW 48	AVG. LOW 48	AVG. LOW 49				
LOWEST 31	LOWEST 40	LOWEST 37				
YEAR 1951	YEAR 1961	YEAR 1961				

AVG. MAXIMUM TEMPERATURE	66.1 °	AVG. WIND SPEED	8.0 KNOTS
AVG. MINIMUM TEMPERATURE	43.7 °	PREVAILING WIND DIR.	West
RECORD HIGH TEMPERATURE	86 °	AVERAGE RAINFALL	0.56 IN.
RECORD LOW TEMPERATURE	16 °	AVERAGE SNOWFALL	0.5 IN.
AVG. RELATIVE HUMIDITY	31 %	AVERAGE CLOUDINESS	40 %
GREATEST MONTHLY RAINFALL	3.00 IN., YEAR 1958		
GREATEST 24-HOUR RAINFALL	1.46 IN., YEAR 1958, DATE 5-6th		

** AVERAGE DATE OF LAST FREEZING TEMPERATURE IN SPRING. ***LATEST DATE OF FREEZING TEMPERATURE IN SPRING.

"A" STATION, WHITE SANDS MISSILE RANGE

DAILY TEMPERATURE MEANS AND EXTREMES, WITH YEAR OF OCCURRENCE

MONTHLY SUMMARY OF AVERAGE CLIMATOLOGICAL DATA, WITH RAINFALL EXTREMES

APRIL — **APRIL**

1	2	3	4	5	6	7
AVG. HIGH 72	AVG. HIGH 72	AVG. HIGH 72	AVG. HIGH 73	AVG. HIGH 73	AVG. HIGH 73	AVG. HIGH 73
HIGHEST 80	HIGHEST 83	HIGHEST 86	HIGHEST 87	HIGHEST 86	HIGHEST 85	HIGHEST 86
YEAR 1950	YEAR 1966	YEAR 1954	YEAR 1967	YEAR 1959	YEAR 1954	YEAR 1963
AVG. LOW 49	AVG. LOW 49	AVG. LOW 49	AVG. LOW 49	AVG. LOW 49	AVG. LOW 49	AVG. LOW 49
LOWEST 40	LOWEST 35	LOWEST 35	LOWEST 37	LOWEST 41	LOWEST 36	LOWEST 41
YEAR 1955	YEAR 1956	YEAR 1960	YEAR 1964	YEAR 1966	YEAR 1966	YEAR 1964
8	**9**	**10**	**11** *	**12**	**13**	**14** **
AVG. HIGH 74	AVG. HIGH 74	AVG. HIGH 74	AVG. HIGH 74	AVG. HIGH 75	AVG. HIGH 75	AVG. HIGH 75
HIGHEST 86	HIGHEST 84	HIGHEST 86	HIGHEST 88	HIGHEST 82	HIGHEST 85	HIGHEST 90
YEAR 1963	YEAR 1954	YEAR 1960	YEAR 1960	YEAR 1963	YEAR 1962	YEAR 1963
AVG. LOW 50	AVG. LOW 50	AVG. LOW 50	AVG. LOW 51	AVG. LOW 51	AVG. LOW 52	AVG. LOW 52
LOWEST 40	LOWEST 41	LOWEST 41	LOWEST 34	LOWEST 37	LOWEST 36	LOWEST 38
YEAR 1964	YEAR 1964	YEAR 1956	YEAR 1951	YEAR 1953	YEAR 1959	YEAR 1958
15	**16**	**17**	**18**	**19**	**20**	**21**
AVG. HIGH 76	AVG. HIGH 76	AVG. HIGH 76	AVG. HIGH 77	AVG. HIGH 77	AVG. HIGH 77	AVG. HIGH 77
HIGHEST 89	HIGHEST 91	HIGHEST 89	HIGHEST 89	HIGHEST 88	HIGHEST 88	HIGHEST 92
YEAR 1962	YEAR 1962	YEAR 1962	YEAR 1954	YEAR 1962	YEAR 1965	YEAR 1965
AVG. LOW 53	AVG. LOW 53	AVG. LOW 54	AVG. LOW 54	AVG. LOW 55	AVG. LOW 55	AVG. LOW 55
LOWEST 42	LOWEST 43	LOWEST 43	LOWEST 42	LOWEST 43	LOWEST 42	LOWEST 45
YEAR 1956	YEAR 1961	YEAR 1960	YEAR 1960	YEAR 1956	YEAR 1968	YEAR 1959
22 ø	**23**	**24**	**25**	**26**	**27**	**28**
AVG. HIGH 77	AVG. HIGH 77	AVG. HIGH 78	AVG. HIGH 78	AVG. HIGH 78	AVG. HIGH 78	AVG. HIGH 78
HIGHEST 94	HIGHEST 89	HIGHEST 88	HIGHEST 83	HIGHEST 89	HIGHEST 85	HIGHEST 84
YEAR 1965	YEAR 1965	YEAR 1959	YEAR 1956	YEAR 1950	YEAR 1953	YEAR 1961
AVG. LOW 55	AVG. LOW 55	AVG. LOW 55	AVG. LOW 55	AVG. LOW 56	AVG. LOW 56	AVG. LOW 56
LOWEST 46	LOWEST 41	LOWEST 36	LOWEST 45	LOWEST 43	LOWEST 43	LOWEST 49
YEAR 1952	YEAR 1968	YEAR 1968	YEAR 1961	YEAR 1964	YEAR 1965	YEAR 1961
AVG. HIGH 78	AVG. HIGH 79					
HIGHEST 87	HIGHEST 89					
YEAR 1961	YEAR 1961					
29	**30**					
AVG. LOW 56	AVG. LOW 56					
LOWEST 45	LOWEST 42					
YEAR 1951	YEAR 1951					

AVERAGE MAXIMUM TEMPERATURE	75.4 °	AVERAGE MONTHLY WIND SPEED	8.6 KNOTS
AVERAGE MINIMUM TEMPERATURE	52.6 °	PREVAILING WIND DIRECTION	West
RECORD MAXIMUM TEMPERATURE ø	94 °	AVERAGE MONTHLY RAINFALL	0.27 INCH
RECORD MINIMUM TEMPERATURE *	34 °	AVERAGE MONTHLY SNOWFALL	Trace INCH
AVERAGE RELATIVE HUMIDITY	26 %	AVERAGE MONTHLY CLOUDINESS	35 %
GREATEST MONTHLY RAINFALL	1.37 IN.,	YEAR 1952	
GREATEST 24-HOUR RAINFALL	0.95 IN.,	YEAR 1952,	DATE 11th

**EARLIEST DATE OF ≥ 90° TEMPERATURE AT STATION.

"A" STATION, WHITE SANDS MISSILE RANGE

DAILY TEMPERATURE MEANS AND EXTREMES, WITH YEAR OF OCCURRENCE

MONTHLY SUMMARY OF AVERAGE CLIMATOLOGICAL DATA, WITH RAINFALL EXTREMES

MAY

1	2	3	4	5	6	7
AVG. HIGH 79	AVG. HIGH 80	AVG. HIGH 80	AVG. HIGH 81	AVG. HIGH 81	AVG. HIGH 82	AVG. HIGH 82
HIGHEST 90	HIGHEST 87	HIGHEST 89	HIGHEST 91	HIGHEST 92	HIGHEST 92	HIGHEST 93
YEAR 1961	YEAR 1965	YEAR 1956	YEAR 1962	YEAR 1962	YEAR 1962	YEAR 1956
AVG. LOW 56	AVG. LOW 56	AVG. LOW 56	AVG. LOW 57	AVG. LOW 57	AVG. LOW 57	AVG. LOW 58
LOWEST 41	LOWEST 39	LOWEST 43	LOWEST 39	LOWEST 44	LOWEST 46	LOWEST 49
YEAR 1951	YEAR 1967	YEAR 1953	YEAR 1953	YEAR 1950	YEAR 1950	YEAR 1960
8	**9**	**10**	**11**	**12**	**13**	**14**
AVG. HIGH 82	AVG. HIGH 83	AVG. HIGH 83	AVG. HIGH 83	AVG. HIGH 84	AVG. HIGH 84	AVG. HIGH 84
HIGHEST 93	HIGHEST 93	HIGHEST 94	HIGHEST 95	HIGHEST 93	HIGHEST 93	HIGHEST 95
YEAR 1956	YEAR 1962	YEAR 1962	YEAR 1962	YEAR 1962	YEAR 1960	YEAR 1963
AVG. LOW 58	AVG. LOW 59	AVG. LOW 59	AVG. LOW 59	AVG. LOW 60	AVG. LOW 60	AVG. LOW 60
LOWEST 50	LOWEST 46	LOWEST 45	LOWEST 50	LOWEST 50	LOWEST 45	LOWEST 47
YEAR 1964	YEAR 1965	YEAR 1953	YEAR 1953	YEAR 1955	YEAR 1953	YEAR 1953
15	**16**	**17**	**18**	**19**	**20**	**21**
AVG. HIGH 84	AVG. HIGH 84	AVG. HIGH 84	AVG. HIGH 84	AVG. HIGH 84	AVG. HIGH 85	AVG. HIGH 85
HIGHEST 94	HIGHEST 93	HIGHEST 93	HIGHEST 93	HIGHEST 93	HIGHEST 93	HIGHEST 92
YEAR 1964	YEAR 1964	YEAR 1964	YEAR 1965	YEAR 1961	YEAR 1951	YEAR 1965
AVG. LOW 60	AVG. LOW 61	AVG. LOW 61	AVG. LOW 61	AVG. LOW 62	AVG. LOW 62	AVG. LOW 62
LOWEST 47	LOWEST 49	LOWEST 52	LOWEST 48	LOWEST 47	LOWEST 50	LOWEST 50
YEAR 1957	YEAR 1967	YEAR 1965	YEAR 1968	YEAR 1952	YEAR 1960	YEAR 1967
22	**23**	**24**	**25**	**26**	**27**	**28**
AVG. HIGH 86	AVG. HIGH 86	AVG. HIGH 86	AVG. HIGH 87	AVG. HIGH 87	AVG. HIGH 88	AVG. HIGH 88
HIGHEST 93	HIGHEST 94	HIGHEST 99	HIGHEST 95	HIGHEST 100	HIGHEST 102	HIGHEST 103
YEAR 1965	YEAR 1953	YEAR 1964	YEAR 1951	YEAR 1951	YEAR 1951	YEAR 1951
AVG. LOW 62	AVG. LOW 63	AVG. LOW 63	AVG. LOW 63	AVG. LOW 64	AVG. LOW 64	AVG. LOW 65
LOWEST 55	LOWEST 57	LOWEST 56	LOWEST 54	LOWEST 53	LOWEST 50	LOWEST 55
YEAR 1962	YEAR 1963	YEAR 1959	YEAR 1954	YEAR 1967	YEAR 1950	YEAR 1952
29	**30**	**31**				
AVG. HIGH 89	AVG. HIGH 89	AVG. HIGH 89				
HIGHEST 98	HIGHEST 99	HIGHEST 97				
YEAR 1951	YEAR 1951	YEAR 1953				
AVG. LOW 65	AVG. LOW 65	AVG. LOW 66				
LOWEST 57	LOWEST 57	LOWEST 51				
YEAR 1962	YEAR 1962	YEAR 1964				

AVG. MAXIMUM TEMPERATURE	84.3 °	AVG. WIND SPEED	7.9 KNOTS
AVG. MINIMUM TEMPERATURE	60.7 °	PREVAILING WIND DIR.	West
RECORD HIGH TEMPERATURE	103 °	AVERAGE RAINFALL	0.24 IN.
RECORD LOW TEMPERATURE	39 °	AVERAGE SNOWFALL	0.0 IN.
AVG. RELATIVE HUMIDITY	24 %	AVERAGE CLOUDINESS	11 %
GREATEST MONTHLY RAINFALL	0.95 IN., YEAR 1959		
GREATEST 24-HOUR RAINFALL	0.82 IN., YEAR 1959, DATE 21		

** EARLIEST DATE OF 100° TEMPERATURE AT STATION.

"A" STATION, WHITE SANDS MISSILE RANGE

DAILY TEMPERATURE MEANS AND EXTREMES, WITH YEAR OF OCCURRENCE

MONTHLY SUMMARY OF AVERAGE CLIMATOLOGICAL DATA, WITH RAINFALL EXTREMES

JUNE

JUNE							JUNE
AVG. HIGH 89 HIGHEST 96 YEAR 1953 **1** * AVG. LOW 66 LOWEST 50 YEAR 1964	AVG. HIGH 89 HIGHEST 96 YEAR 1956 **2** AVG. LOW 66 LOWEST 58 YEAR 1964	AVG. HIGH 89 HIGHEST 100 YEAR 1956 **3** AVG. LOW 66 LOWEST 56 YEAR 1962	AVG. HIGH 90 HIGHEST 99 YEAR 1956 **4** AVG. LOW 67 LOWEST 57 YEAR 1957	AVG. HIGH 90 HIGHEST 94 YEAR 1967 **5** AVG. LOW 67 LOWEST 56 YEAR 1965	AVG. HIGH 90 HIGHEST 97 YEAR 1950 **6** AVG. LOW 67 LOWEST 60 YEAR 1959	AVG. HIGH 90 HIGHEST 99 YEAR 1956 **7** AVG. LOW 67 LOWEST 59 YEAR 1960
AVG. HIGH 91 HIGHEST 101 YEAR 1955 **8** AVG. LOW 67 LOWEST 63 YEAR 1968	AVG. HIGH 91 HIGHEST 98 YEAR 1953 **9** AVG. LOW 67 LOWEST 59 YEAR 1965	AVG. HIGH 91 HIGHEST 98 YEAR 1962 **10** AVG. LOW 67 LOWEST 53 YEAR 1965	AVG. HIGH 92 HIGHEST 98 YEAR 1959 **11** AVG. LOW 68 LOWEST 50 YEAR 1965	AVG. HIGH 92 HIGHEST 98 YEAR 1968 **12** AVG. LOW 68 LOWEST 56 YEAR 1960	AVG. HIGH 93 HIGHEST 101 YEAR 1956 **13** AVG. LOW 69 LOWEST 62 YEAR 1955	AVG. HIGH 93 HIGHEST 99 YEAR 1956 **14** AVG. LOW 69 LOWEST 57 YEAR 1951
AVG. HIGH 93 HIGHEST 101 YEAR 1950 **15** AVG. LOW 69 LOWEST 65 YEAR 1968	AVG. HIGH 94 HIGHEST 99 YEAR 1960 **16** AVG. LOW 69 LOWEST 64 YEAR 1968	AVG. HIGH 94 HIGHEST 100 YEAR 1960 **17** AVG. LOW 70 LOWEST 58 YEAR 1968	AVG. HIGH 95 HIGHEST 103 YEAR 1960 **18** AVG. LOW 70 LOWEST 59 YEAR 1955	AVG. HIGH 95 HIGHEST 104 YEAR 1960 **19** AVG. LOW 71 LOWEST 64 YEAR 1965	AVG. HIGH 95 HIGHEST 103 YEAR 1960 **20** AVG. LOW 71 LOWEST 63 YEAR 1953	AVG. HIGH 96 HIGHEST 105 YEAR 1968 **21** AVG. LOW 71 LOWEST 61 YEAR 1966
AVG. HIGH 96 HIGHEST 104 YEAR 1960 **22** AVG. LOW 72 LOWEST 62 YEAR 1965	AVG. HIGH 96 HIGHEST 102 YEAR 1968 **23** AVG. LOW 72 LOWEST 68 YEAR 1966	AVG. HIGH 96 HIGHEST 102 YEAR 1961 **24** AVG. LOW 72 LOWEST 63 YEAR 1965	AVG. HIGH 95 HIGHEST 102 YEAR 1951 **25** AVG. LOW 72 LOWEST 63 YEAR 1964	AVG. HIGH 95 HIGHEST 103 YEAR 1957 **26** AVG. LOW 72 LOWEST 62 YEAR 1967	AVG. HIGH 94 HIGHEST 103 YEAR 1957 **27** AVG. LOW 72 LOWEST 62 YEAR 1966	AVG. HIGH 94 HIGHEST 106 YEAR 1951 **28** Ø AVG. LOW 71 LOWEST 64 YEAR 1966
AVG. HIGH 94 HIGHEST 106 YEAR 1951 **29** Ø AVG. LOW 71 LOWEST 61 YEAR 1967	AVG. HIGH 95 HIGHEST 103 YEAR 1960 **30** AVG. LOW 71 LOWEST 62 YEAR 1966					

AVERAGE MAXIMUM TEMPERATURE	92.9 °	AVERAGE MONTHLY WIND SPEED	6.8 KNOTS
AVERAGE MINIMUM TEMPERATURE	69.2 °	PREVAILING WIND DIRECTION	West
RECORD MAXIMUM TEMPERATURE Ø	106 °	AVERAGE MONTHLY RAINFALL	0.90 INCH
RECORD MINIMUM TEMPERATURE *	50 °	AVERAGE MONTHLY SNOWFALL	0.0 INCH
AVERAGE RELATIVE HUMIDITY	27 %	AVERAGE MONTHLY CLOUDINESS	34 %
GREATEST MONTHLY RAINFALL	7.42 IN.,	YEAR 1966	
GREATEST 24-HOUR RAINFALL	2.40 IN.,	YEAR 1966, DATE 29th	

Ø ABSOLUTE RECORD MAXIMUM TEMPERATURE AT STATION.

"A" STATION, WHITE SANDS MISSILE RANGE

DAILY TEMPERATURE MEANS AND EXTREMES, WITH YEAR OF OCCURRENCE

MONTHLY SUMMARY OF AVERAGE CLIMATOLOGICAL DATA, WITH RAINFALL EXTREMES

JULY

JULY						JULY
AVG. HIGH 95 HIGHEST 103 YEAR 1957 **1** AVG. LOW 71 LOWEST 65 YEAR 1959	AVG. HIGH 95 HIGHEST 106 YEAR 1960 Ø **2** AVG. LOW 71 LOWEST 65 YEAR 1956	AVG. HIGH 94 HIGHEST 105 YEAR 1960 **3** AVG. LOW 71 LOWEST 64 YEAR 1968	AVG. HIGH 94 HIGHEST 103 YEAR 1966 **4** AVG. LOW 70 LOWEST 62 YEAR 1968	AVG. HIGH 94 HIGHEST 99 YEAR 1966 **5** AVG. LOW 70 LOWEST 60 YEAR 1968	AVG. HIGH 93 HIGHEST 102 YEAR 1951 **6** AVG. LOW 70 LOWEST 62 YEAR 1968	AVG. HIGH 93 HIGHEST 104 YEAR 1951 **7** AVG. LOW 70 LOWEST 64 YEAR 1960
AVG. HIGH 93 HIGHEST 106 YEAR 1951 **8** Ø AVG. LOW 71 LOWEST 61 YEAR 1952	AVG. HIGH 93 HIGHEST 104 YEAR 1951 **9** * AVG. LOW 71 LOWEST 59 YEAR 1952	AVG. HIGH 93 HIGHEST 105 YEAR 1951 **10** AVG. LOW 71 LOWEST 64 YEAR 1960	AVG. HIGH 93 HIGHEST 104 YEAR 1958 **11** AVG. LOW 71 LOWEST 65 YEAR 1962	AVG. HIGH 93 HIGHEST 1965 YEAR 1965 **12** AVG. LOW 71 LOWEST 62 YEAR 1959	AVG. HIGH 93 HIGHEST 101 YEAR 1963 **13** AVG. LOW 71 LOWEST 63 YEAR 1964	AVG. HIGH 93 HIGHEST 104 YEAR 1958 **14** AVG. LOW 71 LOWEST 64 YEAR 1950
AVG. HIGH 94 HIGHEST 104 YEAR 1963 **15** AVG. LOW 71 LOWEST 67 YEAR 1952	AVG. HIGH 94 HIGHEST 101 YEAR 1963 **16** AVG. LOW 71 LOWEST 65 YEAR 1952	AVG. HIGH 94 HIGHEST 100 YEAR 1963 **17** AVG. LOW 71 LOWEST 66 YEAR 1959	AVG. HIGH 94 HIGHEST 99 YEAR 1963 **18** AVG. LOW 71 LOWEST 65 YEAR 1956	AVG. HIGH 94 HIGHEST 101 YEAR 1951 **19** AVG. LOW 71 LOWEST 63 YEAR 1962	AVG. HIGH 93 HIGHEST 101 YEAR 1961 **20** AVG. LOW 71 LOWEST 63 YEAR 1955	AVG. HIGH 93 HIGHEST 99 YEAR 1952 **21** AVG. LOW 70 LOWEST 62 YEAR 1955
AVG. HIGH 93 HIGHEST 100 YEAR 1966 **22** AVG. LOW 70 LOWEST 62 YEAR 1950	AVG. HIGH 92 HIGHEST 102 YEAR 1963 **23** AVG. LOW 70 LOWEST 61 YEAR 1955	AVG. HIGH 92 HIGHEST 105 YEAR 1963 **24** AVG. LOW 70 LOWEST 66 YEAR 1957	AVG. HIGH 92 HIGHEST 101 YEAR 1963 **25** AVG. LOW 70 LOWEST 63 YEAR 1956	AVG. HIGH 92 HIGHEST 99 YEAR 1966 **26** AVG. LOW 70 LOWEST 62 YEAR 1950	AVG. HIGH 92 HIGHEST 102 YEAR 1954 **27** AVG. LOW 70 LOWEST 62 YEAR 1962	AVG. HIGH 92 HIGHEST 102 YEAR 1954 **28** AVG. LOW 70 LOWEST 65 YEAR 1968
AVG. HIGH 92 HIGHEST 100 YEAR 1960 **29** AVG. LOW 70 LOWEST 63 YEAR 1962	AVG. HIGH 92 HIGHEST 99 YEAR 1957 **30** AVG. LOW 70 LOWEST 62 YEAR 1962	AVG. HIGH 92 HIGHEST 97 YEAR 1967 **31** AVG. LOW 70 LOWEST 63 YEAR 1968				

AVG. MAXIMUM TEMPERATURE	93.2 °	AVG. WIND SPEED	4.9 KNOTS
AVG. MINIMUM TEMPERATURE	70.5 °	PREVAILING WIND DIR.	SE
RECORD HIGH TEMPERATURE Ø	106 °	AVERAGE RAINFALL	2.03 IN.
RECORD LOW TEMPERATURE *	59 °	AVERAGE SNOWFALL	0.0 IN.
AVG. RELATIVE HUMIDITY	43 %	AVERAGE CLOUDINESS	47 %
GREATEST MONTHLY RAINFALL	5.63 IN., YEAR 1962		
GREATEST 24-HOUR RAINFALL	2.31 IN., YEAR 1961, DATE 4th		

Ø ABSOLUTE RECORD MAXIMUM TEMPERATURE AT STATION: 106° ON THREE DATES IN 1951 AND ONE IN 1960.

"A" STATION, WHITE SANDS MISCILE RANGE

DAILY TEMPERATURE MEANS AND EXTREMES, WITH YEAR OF OCCURRENCE

MONTHLY SUMMARY OF AVERAGE CLIMATOLOGICAL DATA, WITH RAINFALL EXTREMES

AUGUST **AUGUST**

1	2	3	4	5	6	7
AVG. HIGH 92	AVG. HIGH 92	AVG. HIGH 92	AVG. HIGH 92	AVG. HIGH 93	AVG. HIGH 93	AVG. HIGH 93
HIGHEST 102	HIGHEST 100	HIGHEST 98	HIGHEST 98	HIGHEST 97	HIGHEST 100	HIGHEST 101
YEAR 1966	YEAR 1960	YEAR 1960	YEAR 1964	YEAR 1952	YEAR 1951	YEAR 1951
AVG. LOW 70	AVG. LOW 70	AVG. LOW 70	AVG. LOW 70	AVG. LOW 70	AVG. LOW 70	AVG. LOW 70
LOWEST 62	LOWEST 65	LOWEST 63	LOWEST 65	LOWEST 66	LOWEST 63	LOWEST 64
YEAR 1965	YEAR 1965	YEAR 1965	YEAR 1956	YEAR 1963	YEAR 1963	YEAR 1964
8	**9**	**10**	**11**	**12**	**13**	**14**
AVG. HIGH 93	AVG. HIGH 93	AVG. HIGH 93	AVG. HIGH 92	AVG. HIGH 92	AVG. HIGH 92	AVG. HIGH 91
HIGHEST 101	HIGHEST 100	HIGHEST 100	HIGHEST 101	HIGHEST 98	HIGHEST 97	HIGHEST 100
YEAR 1951	YEAR 1951	YEAR 1951	YEAR 1964	YEAR 1951	YEAR 1951	YEAR 1962
AVG. LOW 70	AVG. LOW 70	AVG. LOW 70	AVG. LOW 70	AVG. LOW 70	AVG. LOW 69	AVG. LOW 69
LOWEST 65	LOWEST 65	LOWEST 63	LOWEST 61	LOWEST 59	LOWEST 64	LOWEST 65
YEAR 1966	YEAR 1967	YEAR 1967	YEAR 1960	YEAR 1966	YEAR 1960	YEAR 1967
15	**16**	**17**	**18**	**19**	**20**	**21**
AVG. HIGH 91	AVG. HIGH 91	AVG. HIGH 90	AVG. HIGH 90	AVG. HIGH 90	AVG. HIGH 90	AVG. HIGH 90
HIGHEST 100	HIGHEST 97	HIGHEST 101	HIGHEST 99	HIGHEST 98	HIGHEST 98	HIGHEST 100
YEAR 1962	YEAR 1951	YEAR 1951	YEAR 1951	YEAR 1951	YEAR 1951	YEAR 1952
AVG. LOW 69	AVG. LOW 69	AVG. LOW 69	AVG. LOW 68	AVG. LOW 68	AVG. LOW 68	AVG. LOW 68
LOWEST 62	LOWEST 60	LOWEST 62	LOWEST 63	LOWEST 64	LOWEST 62	LOWEST 63
YEAR 1965	YEAR 1967	YEAR 1968	YEAR 1967	YEAR 1965	YEAR 1967	YEAR 1968
22	**23**	**24**	**25**	**26**	**27**	**28**
AVG. HIGH 90	AVG. HIGH 90	AVG. HIGH 90	AVG. HIGH 90	AVG. HIGH 90	AVG. HIGH 90	AVG. HIGH 90
HIGHEST 97	HIGHEST 96	HIGHEST 97	HIGHEST 97	HIGHEST 96	HIGHEST 98	HIGHEST 98
YEAR 1950	YEAR 1950	YEAR 1950	YEAR 1964	YEAR 1960 *	YEAR 1965	YEAR 1962
AVG. LOW 68	AVG. LOW 68	AVG. LOW 68	AVG. LOW 68	AVG. LOW 68	AVG. LOW 68	AVG. LOW 68
LOWEST 63	LOWEST 62	LOWEST 62	LOWEST 59	LOWEST 55	LOWEST 63	LOWEST 63
YEAR 1967	YEAR 1966	YEAR 1954	YEAR 1966	YEAR 1966	YEAR 1966	YEAR 1952
29	**30**	**31**				
AVG. HIGH 90	AVG. HIGH 90	AVG. HIGH 90				
HIGHEST 98	HIGHEST 98	HIGHEST 98				
YEAR 1962	YEAR 1962	YEAR 1950				
AVG. LOW 68	AVG. LOW 68	AVG. LOW 68				
LOWEST 63	LOWEST 61	LOWEST 58				
YEAR 1967	YEAR 1967	YEAR 1967				

AVG. MAXIMUM TEMPERATURE	91.1 °	AVG. WIND SPEED	4.6 KNOTS
AVG. MINIMUM TEMPERATURE	68.9 °	PREVAILING WIND DIR.	West
RECORD HIGH TEMPERATURE Ø	102 °	AVERAGE RAINFALL	1.75 IN.
RECORD LOW TEMPERATURE *	55 °	AVERAGE SNOWFALL	0.0 IN.
AVG. RELATIVE HUMIDITY	43 %	AVERAGE CLOUDINESS	44 %
GREATEST MONTHLY RAINFALL	6.32 IN., YEAR 1959		
GREATEST 24-HOUR RAINFALL	4.25 IN., YEAR 1959, DATE 23-24		

Ø LATEST DATE OF ≥ 100° TEMPERATURE AT STATION, 1952.

"A" STATION, WHITE SANDS MISSILE RANGE

DAILY TEMPERATURE MEANS AND EXTREMES, WITH YEAR OF OCCURRENCE

MONTHLY SUMMARY OF AVERAGE CLIMATOLOGICAL DATA, WITH RAINFALL EXTREMES

SEPTEMBER — **SEPTEMBER**

1	2	3	4	5	6	7
AVG. HIGH 89	AVG. HIGH 89	AVG. HIGH 89	AVG. HIGH 88	AVG. HIGH 88	AVG. HIGH 88	AVG. HIGH 87
HIGHEST 97	HIGHEST 98	HIGHEST 98	HIGHEST 97	HIGHEST 98	HIGHEST 97	HIGHEST 96
YEAR 1951	YEAR 1951	YEAR 1951	YEAR 1951	YEAR 1951	YEAR 1951	YEAR 1959
AVG. LOW 67	AVG. LOW 67	AVG. LOW 66	AVG. LOW 66	AVG. LOW 65	AVG. LOW 65	AVG. LOW 65
LOWEST 57	LOWEST 58	LOWEST 61	LOWEST 53	LOWEST 56	LOWEST 59	LOWEST 58
YEAR 1967	YEAR 1968	YEAR 1963	YEAR 1961	YEAR 1961	YEAR 1967	YEAR 1968
8	**9**	**10**	**11**	**12**	**13**	**14**
AVG. HIGH 87	AVG. HIGH 87	AVG. HIGH 87	AVG. HIGH 87	AVG. HIGH 87	AVG. HIGH 87	AVG. HIGH 87
HIGHEST 94	HIGHEST 94	HIGHEST 95	HIGHEST 91	HIGHEST 93	HIGHEST 92	HIGHEST 93
YEAR 1968	YEAR 1957	YEAR 1951	YEAR 1967	YEAR 1951	YEAR 1956	YEAR 1960
AVG. LOW 65	AVG. LOW 65	AVG. LOW 64	AVG. LOW 64	AVG. LOW 64	AVG. LOW 64	AVG. LOW 64
LOWEST 58	LOWEST 59	LOWEST 58	LOWEST 57	LOWEST 59	LOWEST 55	LOWEST 54
YEAR 1966	YEAR 1966	YEAR 1956	YEAR 1956	YEAR 1959	YEAR 1968	YEAR 1959
15	**16**	**17**	**18**	**19**	**20**	**21**
AVG. HIGH 87	AVG. HIGH 87	AVG. HIGH 87	AVG. HIGH 86	AVG. HIGH 86	AVG. HIGH 86	AVG. HIGH 85
HIGHEST 95	HIGHEST 98	HIGHEST 96	HIGHEST 95	HIGHEST 95	HIGHEST 95	HIGHEST 92
YEAR 1956	YEAR 1956	YEAR 1956	YEAR 1953	YEAR 1954	YEAR 1954	YEAR 1951
AVG. LOW 64	AVG. LOW 64	AVG. LOW 64	AVG. LOW 64	AVG. LOW 64	AVG. LOW 63	AVG. LOW 63
LOWEST 58	LOWEST 54	LOWEST 55	LOWEST 51	LOWEST 57	LOWEST 59	LOWEST 51
YEAR 1961	YEAR 1961	YEAR 1968	YEAR 1968	YEAR 1968	YEAR 1964	YEAR 1965
22	**23**	**24**	**25**	**26**	**27** ØØ	**28** *
AVG. HIGH 85	AVG. HIGH 85	AVG. HIGH 84	AVG. HIGH 84	AVG. HIGH 84	AVG. HIGH 84	AVG. HIGH 83
HIGHEST 92	HIGHEST 93	HIGHEST 94	HIGHEST 94	HIGHEST 96	HIGHEST 95	HIGHEST 92
YEAR 1956	YEAR 1951	YEAR 1951	YEAR 1951	YEAR 1951	YEAR 1951	YEAR 1956
AVG. LOW 63	AVG. LOW 62	AVG. LOW 62	AVG. LOW 61	AVG. LOW 61	AVG. LOW 60	AVG. LOW 60
LOWEST 52	LOWEST 56	LOWEST 55	LOWEST 51	LOWEST 54	LOWEST 53	LOWEST 49
YEAR 1965	YEAR 1965	YEAR 1950	YEAR 1957	YEAR 1968	YEAR 1968	YEAR 1964
29	**30**					
AVG. HIGH 83	AVG. HIGH 83					
HIGHEST 93	HIGHEST 89					
YEAR 1951	YEAR 1951					
AVG. LOW 60	AVG. LOW 60					
LOWEST 52	LOWEST 51					
YEAR 1967	YEAR 1965					

AVERAGE MAXIMUM TEMPERATURE	86.2 °	AVERAGE MONTHLY WIND SPEED	4.8 KNOTS
AVERAGE MINIMUM TEMPERATURE	63.5 °	PREVAILING WIND DIRECTION	West
RECORD MAXIMUM TEMPERATURE	Ø 98 °	AVERAGE MONTHLY RAINFALL	1.40 INCH
RECORD MINIMUM TEMPERATURE	* 49 °	AVERAGE MONTHLY SNOWFALL	0.0 INCH
AVERAGE RELATIVE HUMIDITY	41 %	AVERAGE MONTHLY CLOUDINESS	30 %
GREATEST MONTHLY RAINFALL	5.76 IN.,	YEAR 1958	
GREATEST 24-HOUR RAINFALL	2.96 IN.,	YEAR 1964,	DATE 11-12

ØØ LATEST DATE OF ≥ 95° TEMPERATURE AT STATION, 1951.

"A" STATION, WHITE SANDS MISSILE RANGE

DAILY TEMPERATURE MEANS AND EXTREMES, WITH YEAR OF OCCURRENCE

MONTHLY SUMMARY OF AVERAGE CLIMATOLOGICAL DATA, WITH RAINFALL EXTREMES

OCTOBER **OCTOBER**

1	2	3	4	5	6	7
AVG. HIGH 83	AVG. HIGH 83	AVG. HIGH 82	AVG. HIGH 82	AVG. HIGH 82	AVG. HIGH 82	AVG. HIGH 81
HIGHEST 91	HIGHEST 88	HIGHEST 88	HIGHEST 88	HIGHEST 90	HIGHEST 90	HIGHEST 87
YEAR 1951	YEAR 1951	YEAR 1967	YEAR 1956	YEAR 1956	YEAR 1956	YEAR 1965
AVG. LOW 59	AVG. LOW 59	AVG. LOW 58	AVG. LOW 58	AVG. LOW 57	AVG. LOW 57	AVG. LOW 57
LOWEST 48	LOWEST 48	LOWEST 48	LOWEST 46	LOWEST 49	LOWEST 49	LOWEST 45
YEAR 1965	YEAR 1965	YEAR 1961	YEAR 1961	YEAR 1953	YEAR 1968	YEAR 1952
8	**9** ø	**10**	**11**	**12**	**13**	**14**
AVG. HIGH 81	AVG. HIGH 81	AVG. HIGH 80	AVG. HIGH 80	AVG. HIGH 79	AVG. HIGH 79	AVG. HIGH 78
HIGHEST 90	HIGHEST 92	HIGHEST 89	HIGHEST 88	HIGHEST 88	HIGHEST 88	HIGHEST 90
YEAR 1965	YEAR 1965	YEAR 1965	YEAR 1951	YEAR 1951	YEAR 1968	YEAR 1968
AVG. LOW 57	AVG. LOW 57	AVG. LOW 57	AVG. LOW 56	AVG. LOW 56	AVG. LOW 55	AVG. LOW 55
LOWEST 45	LOWEST 50	LOWEST 48	LOWEST 48	LOWEST 50	LOWEST 50	LOWEST 46
YEAR 1952	YEAR 1959	YEAR 1951	YEAR 196	YEAR 1965	YEAR 1964	YEAR 1966
15	**16**	**17**	**18**	**19**	**20**	**21**
AVG. HIGH 78	AVG. HIGH 77	AVG. HIGH 77	AVG. HIGH 76	AVG. HIGH 76	AVG. HIGH 75	AVG. HIGH 75
HIGHEST 86	HIGHEST 85	HIGHEST 86	HIGHEST 82	HIGHEST 85	HIGHEST 82	HIGHEST 85
YEAR 1951	YEAR 1950	YEAR 1952	YEAR 1955	YEAR 1950	YEAR 1954	YEAR 1961
AVG. LOW 54	AVG. LOW 54	AVG. LOW 53	AVG. LOW 53	AVG. LOW 52	AVG. LOW 52	AVG. LOW 51
LOWEST 45	LOWEST 44	LOWEST 41	LOWEST 38	LOWEST 43	LOWEST 40	LOWEST 43
YEAR 1966	YEAR 1952	YEAR 1967	YEAR 1968	YEAR 1968	YEAR 1964	YEAR 1964
22	**23**	**24**	**25**	**26**	**27**	**28**
AVG. HIGH 74	AVG. HIGH 74	AVG. HIGH 73	AVG. HIGH 73	AVG. HIGH 72	AVG. HIGH 72	AVG. HIGH 71
HIGHEST 84	HIGHEST 85	HIGHEST 83	HIGHEST 86	HIGHEST 82	HIGHEST 83	HIGHEST 85
YEAR 1950	YEAR 1959	YEAR 1950	YEAR 1950	YEAR 1968	YEAR 1950	YEAR 1950
AVG. LOW 51	AVG. LOW 50	AVG. LOW 50	AVG. LOW 50	AVG. LOW 50	AVG. LOW 49	AVG. LOW 49
LOWEST 46	LOWEST 44	LOWEST 43	LOWEST 44	LOWEST 42	LOWEST 41	LOWEST 41
YEAR 1965	YEAR 1968	YEAR 1966	YEAR 1968	YEAR 1964	YEAR 1953	YEAR 1957
29	**30**	**31**				
AVG. HIGH 71	AVG. HIGH 70	AVG. HIGH 70				
HIGHEST 83	HIGHEST 85	HIGHEST 85				
YEAR 1950	YEAR 1950	YEAR 1950				
AVG. LOW 48	AVG. LOW 48	AVG. LOW 47				
LOWEST 40	LOWEST 36	LOWEST 34				
YEAR 1967	YEAR 1967	YEAR 1956				

AVG. MAXIMUM TEMPERATURE	77.0 °	AVG. WIND SPEED	4.6 KNOTS
AVG. MINIMUM TEMPERATURE	53.5 °	PREVAILING WIND DIR.	West
RECORD HIGH TEMPERATURE	ø 92 °	AVERAGE RAINFALL	0.94 IN.
RECORD LOW TEMPERATURE	* 34 °	AVERAGE SNOWFALL	0.0 IN.
AVG. RELATIVE HUMIDITY	38 %	AVERAGE CLOUDINESS	24 %
GREATEST MONTHLY RAINFALL	2.99 IN., YEAR 1955		
GREATEST 24-HOUR RAINFALL	1.91 IN., YEAR 1955, DATE 3-4		

ø LATEST DATE OF TEMPERATURE ≥ 90° AT STATION, 1965.

"A" STATION, WHITE SANDS MISSILE RANGE

DAILY TEMPERATURE MEANS AND EXTREMES, WITH YEAR OF OCCURRENCE

MONTHLY SUMMARY OF AVERAGE CLIMATOLOGICAL DATA, WITH RAINFALL EXTREMES

NOVEMBER

1	2	3	4 ***	5	6	7
AVG. HIGH 69	AVG. HIGH 69	AVG. HIGH 68	AVG. HIGH 68	AVG. HIGH 67	AVG. HIGH 67	AVG. HIGH 66
HIGHEST 84	HIGHEST 77	HIGHEST 74	HIGHEST 75	HIGHEST 76	HIGHEST 79	HIGHEST 83
YEAR 1950	YEAR 1952	YEAR 1960	YEAR 1968	YEAR 1962	YEAR 1950	YEAR 1950
AVG. LOW 46	AVG. LOW 46	AVG. LOW 45	AVG. LOW 45	AVG. LOW 44	AVG. LOW 44	AVG. LOW 43
LOWEST 39	LOWEST 33	LOWEST 33	LOWEST 32	LOWEST 36	LOWEST 29	LOWEST 29
YEAR 1966	YEAR 1966	YEAR 1951	YEAR 1967	YEAR 1964	YEAR 1959	YEAR 1959
8	**9**	**10**	**11** *	**12**	**13**	**14**
AVG. HIGH 66	AVG. HIGH 66	AVG. HIGH 65	AVG. HIGH 65	AVG. HIGH 65	AVG. HIGH 65	AVG. HIGH 64
HIGHEST 80	HIGHEST 75	HIGHEST 76	HIGHEST 74	HIGHEST 74	HIGHEST 74	HIGHEST 77
YEAR 1950	YEAR 1964	YEAR 1958	YEAR 1963	YEAR 1956	YEAR 1965	YEAR 1962
AVG. LOW 43	AVG. LOW 43	AVG. LOW 42	AVG. LOW 42	AVG. LOW 42	AVG. LOW 42	AVG. LOW 42
LOWEST 33	LOWEST 28	LOWEST 25	LOWEST 22	LOWEST 28	LOWEST 34	LOWEST 28
YEAR 1955	YEAR 1955	YEAR 1950	YEAR 1950	YEAR 1950	YEAR 1961	YEAR 1959
15	**16**	**17**	**18**	**19**	**20** **	**21**
AVG. HIGH 64	AVG. HIGH 64	AVG. HIGH 64	AVG. HIGH 64	AVG. HIGH 63	AVG. HIGH 63	AVG. HIGH 63
HIGHEST 77	HIGHEST 80	HIGHEST 81	HIGHEST 77	HIGHEST 74	HIGHEST 73	HIGHEST 73
YEAR 1966	YEAR 1966	YEAR 1966	YEAR 1966	YEAR 1965	YEAR 1966	YEAR 1955
AVG. LOW 42	AVG. LOW 41	AVG. LOW 41	AVG. LOW 41	AVG. LOW 40	AVG. LOW 40	AVG. LOW 40
LOWEST 30	LOWEST 26	LOWEST 28	LOWEST 26	LOWEST 27	LOWEST 28	LOWEST 25
YEAR 1961	YEAR 1956	YEAR 1959	YEAR 1958	YEAR 1958	YEAR 1964	YEAR 1956
22	**23**	**24**	**25**	**26**	**27**	**28**
AVG. HIGH 62	AVG. HIGH 62	AVG. HIGH 62	AVG. HIGH 61	AVG. HIGH 61	AVG. HIGH 61	AVG. HIGH 60
HIGHEST 74	HIGHEST 75	HIGHEST 73	HIGHEST 75	HIGHEST 75	HIGHEST 72	HIGHEST 71
YEAR 1950	YEAR 1965	YEAR 1965	YEAR 1965	YEAR 1960	YEAR 1950	YEAR 1950
AVG. LOW 40	AVG. LOW 39	AVG. LOW 39	AVG. LOW 39	AVG. LOW 39	AVG. LOW 38	AVG. LOW 38
LOWEST 25	LOWEST 30	LOWEST 32	LOWEST 30	LOWEST 25	LOWEST 24	LOWEST 25
YEAR 1964	YEAR 1964	YEAR 1950	YEAR 1956	YEAR 1952	YEAR 1952	YEAR 1959
29	**30**					
AVG. HIGH 60	AVG. HIGH 60					
HIGHEST 71	HIGHEST 72					
YEAR 1950	YEAR 1950					
AVG. LOW 38	AVG. LOW 38					
LOWEST 28	LOWEST 30					
YEAR 1965	YEAR 1963					

AVERAGE MAXIMUM TEMPERATURE	64.1 °	AVERAGE MONTHLY WIND SPEED	5.2 KNOTS
AVERAGE MINIMUM TEMPERATURE	41.4 °	PREVAILING WIND DIRECTION	West
RECORD MAXIMUM TEMPERATURE #	84 °	AVERAGE MONTHLY RAINFALL	0.47 INCH
RECORD MINIMUM TEMPERATURE *	22 °	AVERAGE MONTHLY SNOWFALL	0.1 INCH
AVERAGE RELATIVE HUMIDITY	41 %	AVERAGE MONTHLY CLOUDINESS	30 %
GREATEST MONTHLY RAINFALL	2.40 IN.,	YEAR 1961	
GREATEST 24-HOUR RAINFALL	0.89 IN.,	YEAR 1961,	DATE 8th

*** EARLIEST DATE OF FIRST FREEZING TEMPERATURE, 1967. ** AVERAGE DATE OF FIRST FREEZING TEMPERATURE.

"A" STATION, WHITE SANDS MISSILE RANGE

DAILY TEMPERATURE MEANS AND EXTREMES, WITH YEAR OF OCCURRENCE

MONTHLY SUMMARY OF AVERAGE CLIMATOLOGICAL DATA, WITH RAINFALL EXTREMES

DECEMBER | **DECEMBER**

AVG. HIGH 59 HIGHEST 73 YEAR 1961 **1** AVG. LOW 38 LOWEST 32 YEAR 1956	AVG. HIGH 59 HIGHEST 71 YEAR 1966 **2** AVG. LOW 38 LOWEST 25 YEAR 1957	AVG. HIGH 59 HIGHEST 71 YEAR 1954 **3** AVG. LOW 37 LOWEST 27 YEAR 1968	AVG. HIGH 58 HIGHEST 77 YEAR 1958 **4** AVG. LOW 37 LOWEST 28 YEAR 1963	AVG. HIGH 58 HIGHEST 73 YEAR 1958 **5** AVG. LOW 36 LOWEST 24 YEAR 1952	AVG. HIGH 58 HIGHEST 68 YEAR 1966 **6** AVG. LOW 36 LOWEST 19 YEAR 1950	AVG. HIGH 57 HIGHEST 70 YEAR 1954 **7** AVG. LOW 36 LOWEST 24 YEAR 1953
AVG. HIGH 57 HIGHEST 69 YEAR 1958 **8** AVG. LOW 36 LOWEST 25 YEAR 1968	AVG. HIGH 57 HIGHEST 73 YEAR 1950 **9** AVG. LOW 36 LOWEST 21 YEAR 1953	AVG. HIGH 56 HIGHEST 65 YEAR 1958 **10** AVG. LOW 35 LOWEST 20 YEAR 1951	AVG. HIGH 56 HIGHEST 72 YEAR 1950 **11** AVG. LOW 35 LOWEST 20 YEAR 1960	AVG. HIGH 56 HIGHEST 70 YEAR 1958 **12** ** AVG. LOW 35 LOWEST 22 YEAR 1953	AVG. HIGH 55 HIGHEST 69 YEAR 1950 **13** AVG. LOW 34 LOWEST 24 YEAR 1966	AVG. HIGH 55 HIGHEST 70 YEAR 1950 **14** AVG. LOW 34 LOWEST 21 YEAR 1964
AVG. HIGH 55 HIGHEST 67 YEAR 1950 **15** AVG. LOW 34 LOWEST 22 YEAR 1967	AVG. HIGH 55 HIGHEST 65 YEAR 1950 **16** AVG. LOW 33 LOWEST 26 YEAR 1963	AVG. HIGH 55 HIGHEST 65 YEAR 1957 **17** AVG. LOW 33 LOWEST 27 YEAR 1963	AVG. HIGH 55 HIGHEST 64 YEAR 1957 **18** AVG. LOW 33 LOWEST 24 YEAR 1964	AVG. HIGH 55 HIGHEST 63 YEAR 1955 **19** AVG. LOW 33 LOWEST 26 YEAR 1968	AVG. HIGH 55 HIGHEST 68 YEAR 1950 **20** AVG. LOW 33 LOWEST 26 YEAR 1965	AVG. HIGH 55 HIGHEST 67 YEAR 1955 **21** AVG. LOW 33 LOWEST 25 YEAR 1967
AVG. HIGH 55 HIGHEST 65 YEAR 1950 **22** AVG. LOW 33 LOWEST 22 YEAR 1967	AVG. HIGH 54 HIGHEST 71 YEAR 1955 **23** AVG. LOW 33 LOWEST 17 YEAR 1953	AVG. HIGH 54 HIGHEST 71 YEAR 1955 **24** * AVG. LOW 33 LOWEST +8 YEAR 1953	AVG. HIGH 54 HIGHEST 67 YEAR 1955 **25** AVG. LOW 33 LOWEST 20 YEAR 1953	AVG. HIGH 54 HIGHEST 67 YEAR 1955 **26** AVG. LOW 33 LOWEST 21 YEAR 1953	AVG. HIGH 54 HIGHEST 69 YEAR 1955 **27** AVG. LOW 33 LOWEST 24 YEAR 1953	AVG. HIGH 54 HIGHEST 70 YEAR 1955 **28** AVG. LOW 33 LOWEST 22 YEAR 1966
AVG. HIGH 54 HIGHEST 69 YEAR 1955 **29** AVG. LOW 33 LOWEST 18 YEAR 1966	AVG. HIGH 54 HIGHEST 73 YEAR 1951 **30** AVG. LOW 33 LOWEST 21 YEAR 1958	AVG. HIGH 54 HIGHEST 66 YEAR 1964 **31** AVG. LOW 33 LOWEST 21 YEAR 1958	AVG. MAXIMUM TEMPERATURE 55.7 ° AVG. MINIMUM TEMPERATURE 34.4 ° RECORD HIGH TEMPERATURE 77 ° RECORD LOW TEMPERATURE * +8 ° AVG. RELATIVE HUMIDITY 46 % GREATEST MONTHLY RAINFALL 2.43 IN., YEAR 1965 GREATEST 24-HOUR RAINFALL 1.92 IN., YEAR 1957, DATE 14-15		AVG. WIND SPEED 5.1 KNOTS PREVAILING WIND DIR. West AVERAGE RAINFALL 0.71 IN. AVERAGE SNOWFALL 0.3 IN. AVERAGE CLOUDINESS 36 %	

** LATEST DATE OF FIRST FREEZING TEMPERATURE IN FALL, 1954.

MONTH	1948-1968 [6]										1950-1968								1961-63
	STATION PRESSURE (INCHES OF MERCURY)			SIX-HOURLY RELATIVE HUMIDITY					AVERAGE NUMBER OF DAYS WITH:							AVG. DEGREE DAYS, BASE 65°F θ	GREATEST SNOWFALL		AVG. DAILY SOLAR RADIATION ØØ
	MEANS	HIGHEST	LOWEST	5 AM	11 AM	5 PM	11 PM	MEANS	THUNDER-STORMS	4	PRECIPITATION T	PRECIPITATION .01"	PRECIPITATION .10"	VISIBILITY +	VISIBILITY ++		SINGLE STORM	MONTHLY	
JAN	25.777	26.240	25.210	55	43	38	48	46	-	*	5	3	1	2	1	610	5.5 7-8 ----1968	5.5	332
FEB	25.727	26.170	25.180	49	36	29	40	39	-	*	5	3	1	2	2	456	8.6 14-15----1952	8.6	410
MAR	25.677	26.180	25.180	40	28	22	33	31	1	1	6	4	2	1	4	313	5.5 11-12----1958	5.5	504
APR	25.666	26.080	25.190	35	23	18	27	26	1	1	4	2	1	-	4	93	T	T	624
MAY	25.671	26.080	25.290	34	21	16	25	24	3	2	5	2	1	-	3	19	0	0	679
JUN	25.676	25.970	25.370	38	24	18	28	27	7	4	8	3	2	-	3	0	0	0	692
JUL	25.750	26.050	25.470	58	36	31	46	43	13	8	15	7	4	1	3	0	0	0	632
AUG	25.769	26.010	25.525	59	37	32	45	43	11	7	14	8	4	1	1	0	0	0	584
SEP	25.754	26.040	25.410	55	35	30	44	41	5	7	8	5	3	1	1	1	0	0	538
OCT	25.774	26.220	25.300	50	33	29	41	38	2	1	5	3	2	1	1	65	T	T	485
NOV	25.770	26.240	25.290	51	34	34	44	41	-	1	4	2	1	2	1	362	6.2 14th ----1961	6.2	340
DEC	25.776	26.285	25.200	55	42	38	48	46	-	*	6	4	2	3	*	610	14.0 14-17----1967	14.9	331
YEAR	25.732	26.285	25.180	48	33	28	39	37	44	32	85	46	24	19	24	2525	14.0	14.9	513

* LESS THAN $\frac{1}{2}$. - LESS THAN $\frac{1}{2}$, BUT MAKING A TOTAL OF $\frac{1}{2}$. 4 DISTANT LIGHTNING--NO THUNDER HEARD.

\+ VISIBILITY REDUCED TO 6 MILES OR LESS DUE TO PRECIPITATION AND FOG. θ HEATING DEGREE DAYS.

++ VISIBILITY REDUCED TO 6 MILES OR LESS DUE TO HAZE, DUST AND BLOWING DUST. T TRACE OF PRECIPITATION.

ØØ MEASUREMENTS IN LANGLEYS, MADE ON ROOF OF BUILDING 1744, WBMR HEADQUARTERS, BY CALIBRATION LABORATORY.

TABLE VII. MONTHLY AND ANNUAL CLIMATOLOGICAL DATA, "A" STATION, WBMR HEADQUARTERS

ITEM	WINTER	SPRING	SUMMER	FALL	YEAR
TEMPERATURES (°F)					
Mean Maximum	57.2	75.3	92.4	75.8	75.2
Mean Minimum	35.4	52.3	69.5	52.8	52.5
Mean	46.3	63.8	81.0	64.3	63.9
Extremes of Record					
Highest	81	103	106	98	106
Date	2/11/57	5/28/51	*	9/16/51	*
Lowest	-6	16	50	22	-6
Date	1/31/62	3/4/65	6/11/65	11/11/50	1/11/62
DEGREE DAYS (Base 65°F)	1676	421	0	428	2525
RELATIVE HUMIDITY (%)	44	27	38	40	37
SURFACE WINDS (Knots) **					
Average Speed	W 5.8	W 5.2	W 5.4	W 4.9	W 6.1
Strongest Gusts	SW 82	W, WSW 74	S 60	W 61	SW 82
Month and Year	12/51	3/51,5/61	6/62	11/65	Dec. '51
RAINFALL (Inches) ◐	1.81	1.07	4.68	2.76	10.32
Percent of Annual	18%	10%	45%	27%	100%
Greatest Monthly	2.43	3.00	7.42	5.76	7.42
Month and Year	12/65	3/58	6/66	9/58	6/66
Greatest 24-Hour	1.02	1.46	4.25	2.96	4.25
Dates	12/14-15/67	3/5-6/58	8/23-24/59	9/11-12/64	1959
SNOWFALL (Inches)	4.6	0.5	0.0	0.8	5.9
Greatest Monthly	14.9	3.5	0.0	6.2	14.9
Month and Year	12/67	3/58	- - -	11/61	1967
CLOUDINESS (%)	38	35	40	28	35
NUMBER OF DAYS WITH:					
Measureable Rainfall ◐	10	8	18	10	46
Thunderstorms	1	5	31	7	44
Visibility ≤6 Miles	10	13	9	7	39
◐ 0.01" or more					
STATION PRESSURE					
Average (Inches of Hg)	25.758	25.671	25.732	24.766	24.732

◐ WINTER = Calendar Months of December, January, February.
SPRING = March, April, May. SUMMER = June, July, August.
FALL = September, October, November.

** With Prevailing Wind Directions. To convert knots to miles per hour, multiply knots by 1.15155.

* Four dates: June 28 & 29, 1951; July 8, 1951; July 2, 1960.

◐ "Rainfall" includes water content of snowfall.

TABLE VIII. "A" STATION CLIMATOGRAPHY--SEASONAL VALUES, 1950-1968

MONTH	0500H	1100H	1700H	2300H	MEANS
JAN.	37.7°	47.1°	50.6°	42.2°	44.4°
FEB.	41.2	51.7	56.0	46.3	48.8
MAR.	47.0	58.4	63.2	53.3	55.5
APR.	55.5	68.6	73.5	63.2	65.2
MAY	62.8	77.5	81.7	70.7	73.2
JUNE	71.0	86.3	90.4	78.8	81.6
JULY	72.0	86.4	89.4	79.0	81.7
AUG.	70.4	84.8	87.6	77.5	80.1
SEP.	65.4	80.0	83.0	72.3	75.2
OCT.	56.1	70.4	73.1	62.3	65.5
NOV.	44.7	56.8	58.3	49.7	52.4
DEC.	38.4	48.3	50.2	42.9	45.0
YEAR	55.2	68.0	71.4	61.5	64.0 *

* The Mean annual temperature, as derived from the annual mean maximum and annual mean minimum temperatures, is 63.9° (75.2 + 52.5 / 2 = 63.9°).

Note also that the 6-hourly and mean temperatures for April and October are very near the annual values.

TABLE IX. "A" STATION MEAN 6-HOURLY TEMPERATURES, 1948-1968 [6]

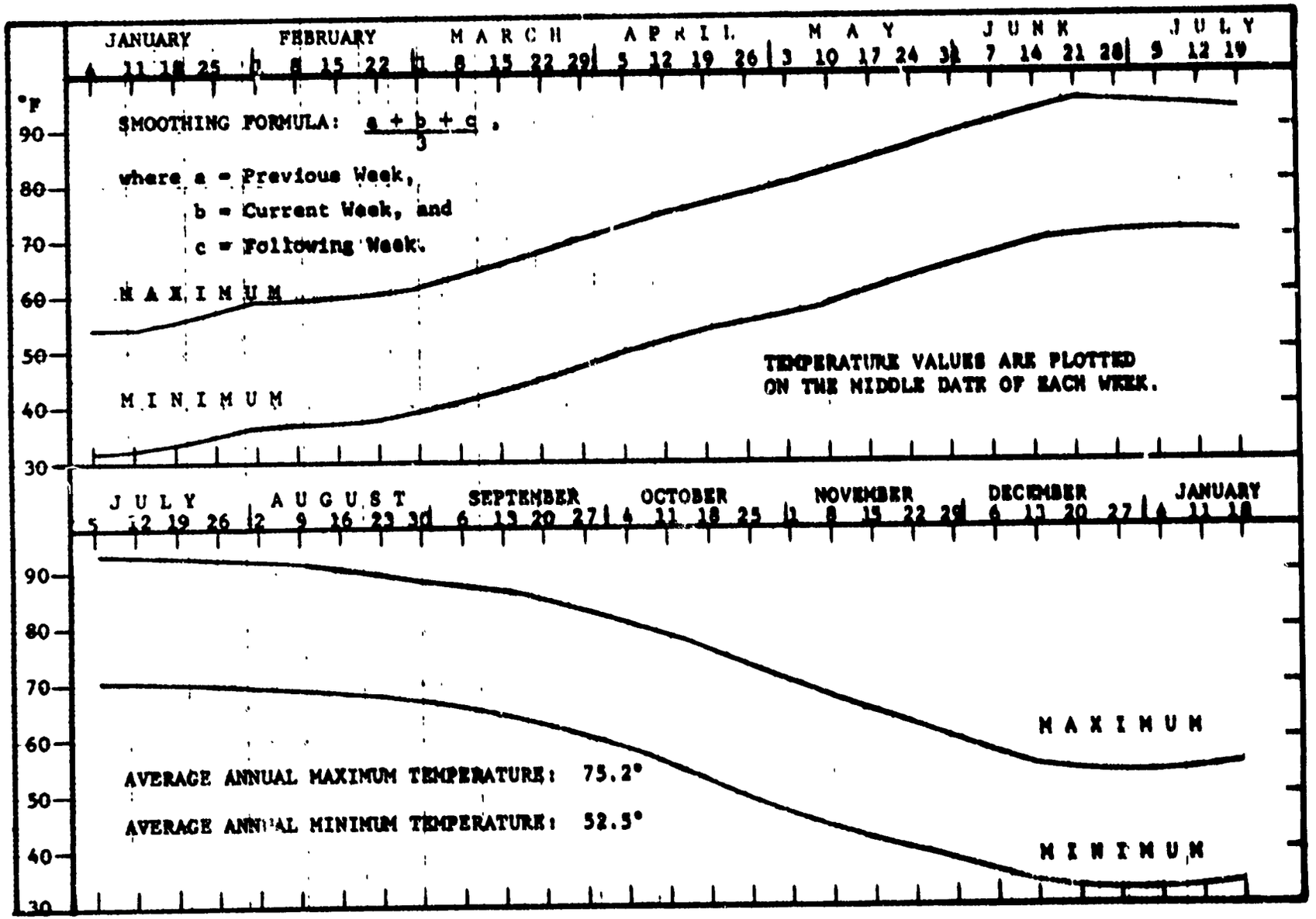


FIG. 3 SMOOTHED WEEKLY MEANS OF MAXIMUM AND MINIMUM TEMPERATURES, 1950-1968, "A" STATION, WSMR, N. M.

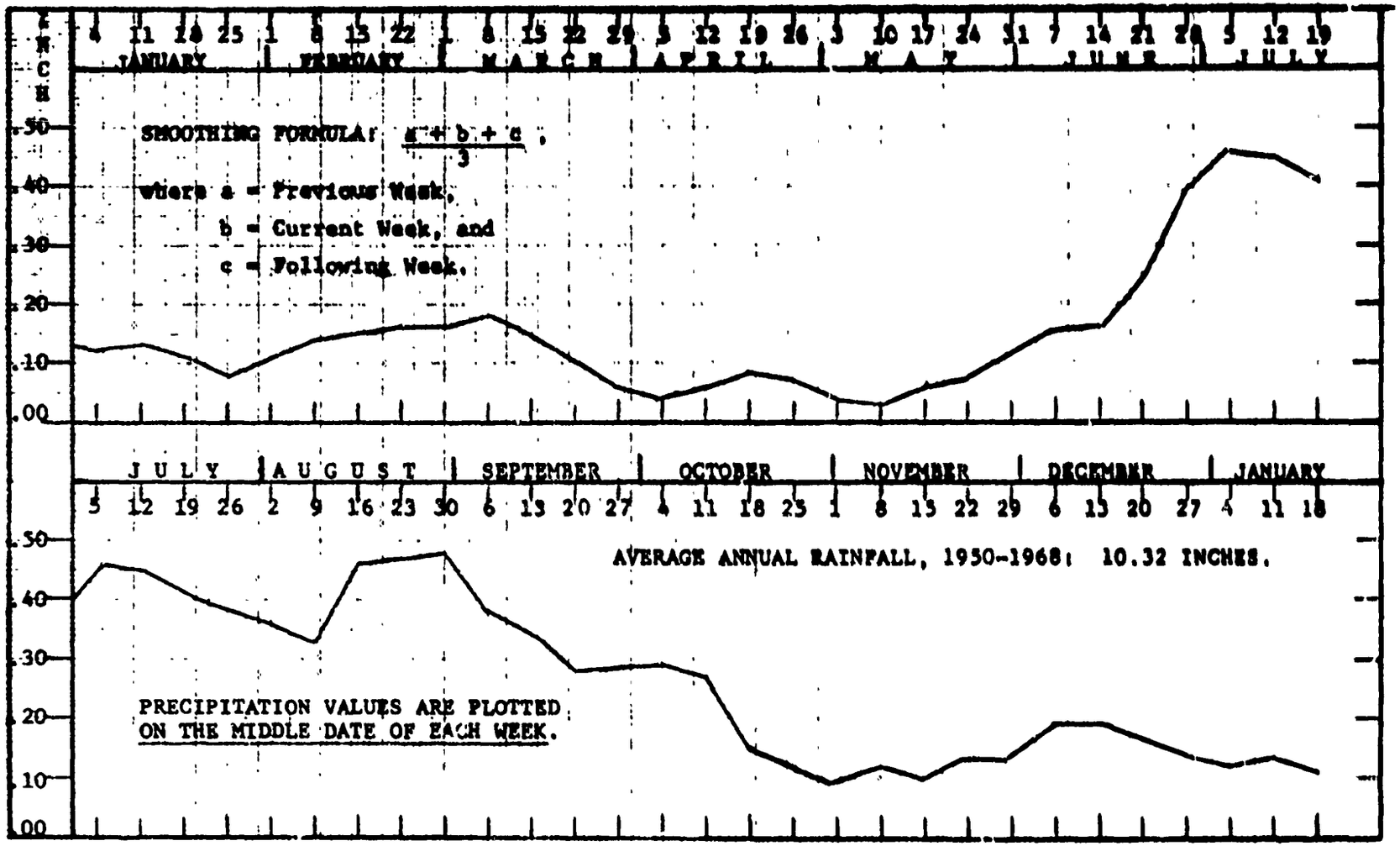


FIG. 4 SMOOTHED WEEKLY PRECIPITATION MEANS, 1950-1968, "A" STATION, WHITE SANDS MISSILE RANGE, N. M.

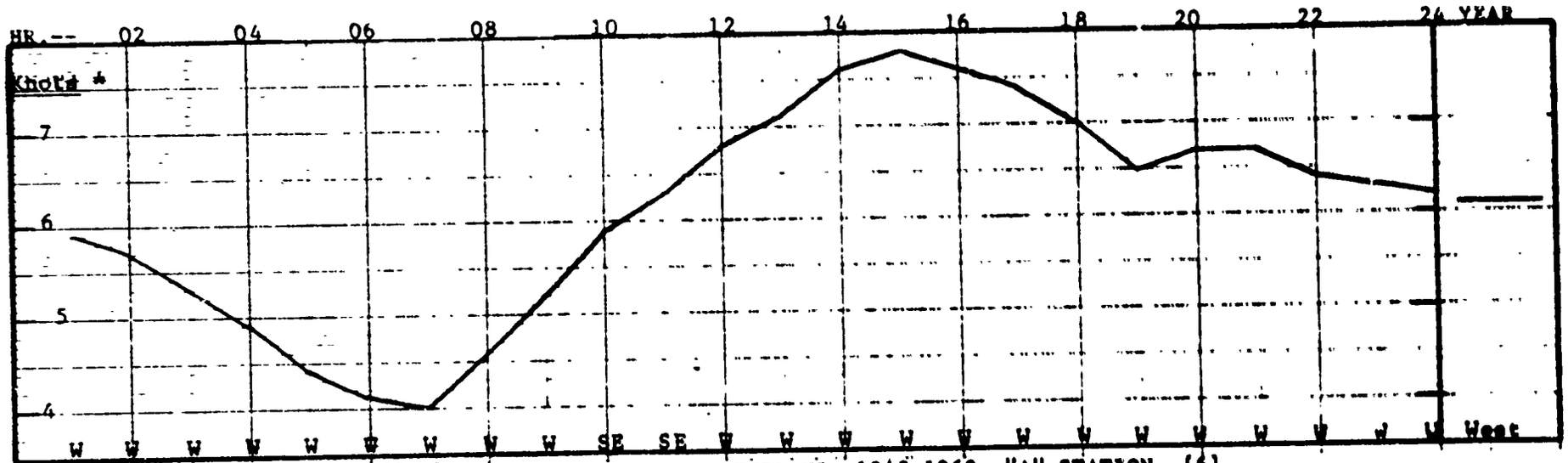


FIG. 5a MEAN HOURLY WIND SPEEDS AND PREVAILING DIRECTIONS, 1948-1960, "A" STATION [6]

*To convert knots to miles per hour, multiply knots by 1.15155.

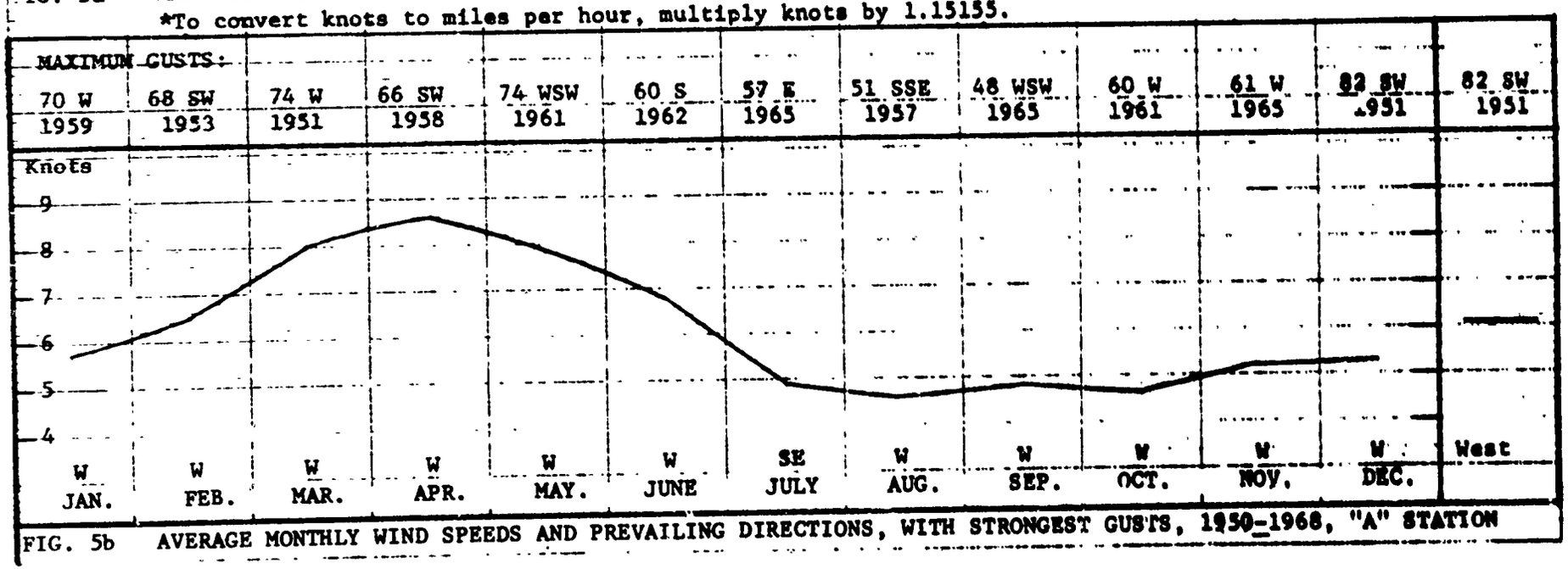


FIG. 5b AVERAGE MONTHLY WIND SPEEDS AND PREVAILING DIRECTIONS, WITH STRONGEST GUSTS, 1950-1968, "A" STATION

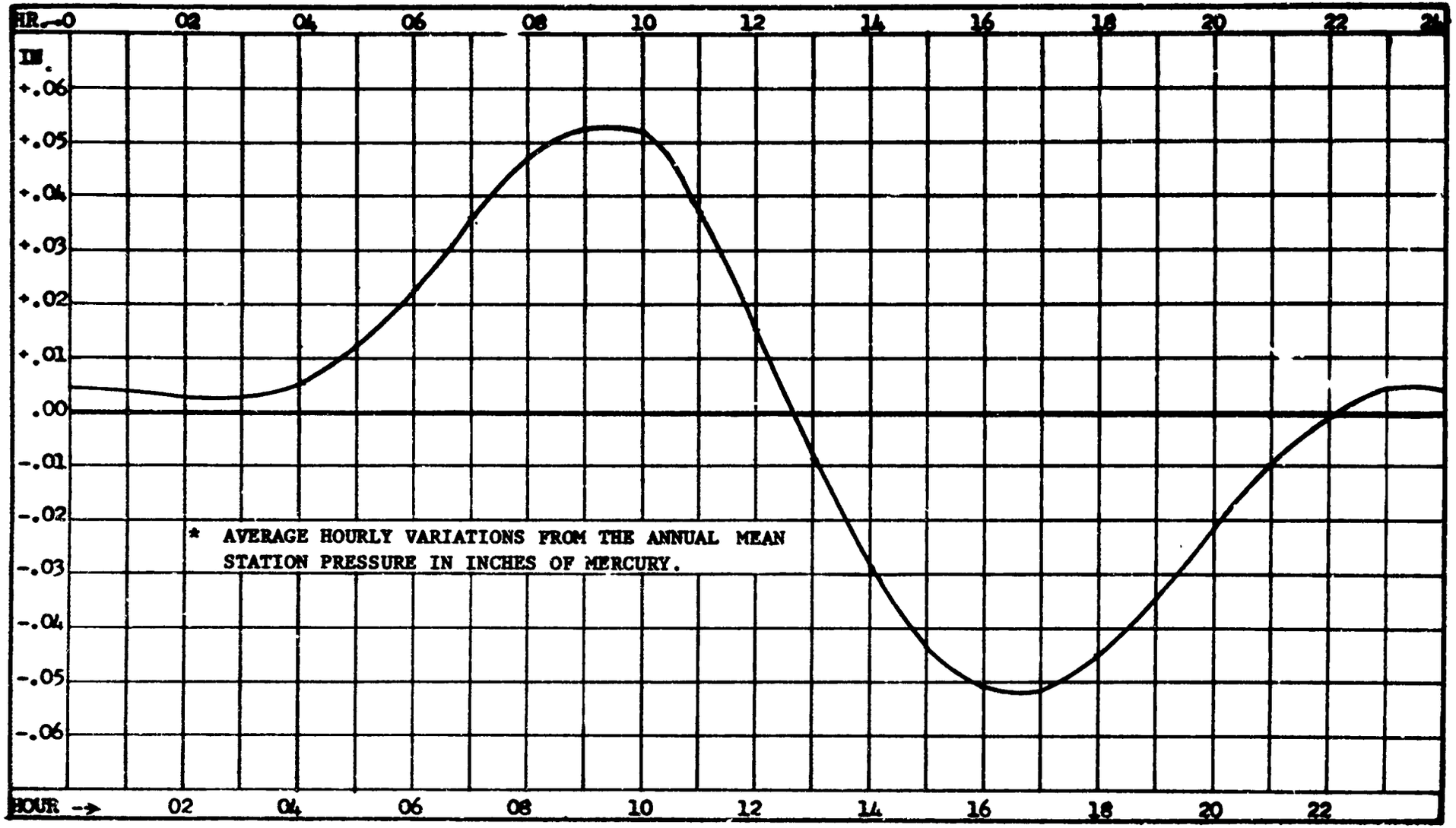


FIG. 6 DIURNAL PRESSURE VARIATIONS*, 1948-1960, "A" STATION, WHITE SANDS MISSILE RANGE, N. M. [6]

REFERENCES

1. "New Mexico Climatological Data," July 1961, U. S. Weather Bureau, Asheville, North Carolina.

2. Kenneth R. Jenkins and Paul H. Taft, "Weather Elements in the Tularosa Basin," Special Report No. 40, July 1960. U. S. Army Signal Missile Support Agency, White Sands Missile Range, New Mexico.

3. "Supplemental Bulletin, Daily and Hourly Precipitation, September 20-24, 1941." Hydrologic Network, Southwest District, Corps of Engineers, U. S. Army and U. S. Weather Bureau, Albuquerque, New Mexico.

4. "Climatography of the United States No. 86-25," New Mexico, 1965, and Monthly Climatological Data, New Mexico, U. S. Department of Commerce, Weather Bureau, Washington, D. C.

5. Records from "Climatological Data, New Mexico," monthly and annual issues, U. S. Department of Commerce, ESSA, Weather Bureau--courtesy of Frank Houghton, State Climatologist.

6. Marjorie M. Hoidale, "Atmospheric Structure, White Sands Missile Range, New Mexico, Part 2," ERDA-106, January 1964. (1948-1960 values from this source with 1961-1968 values added thereto in most cases.)

7. Howard L. DeMastus, "A General Summary of Sacramento Peak Weather," GRD Research Notes No. 82, U. S. Air Force, Bedford, Mass.

8. Paul H. Taft, and John C. Overpeck, "Climate Calendar, New Mexico State University, Las Cruces, New Mexico, 1851 to 1966," January, 1968. Agricultural Experiment Station Research Report 138, New Mexico State University.

9. "Weatherwise," December, 1962. American Meteorological Society, Boston, Mass.

UNCLASSIFIED

Security Classification

DOCUMENT CONTROL DATA - R & D

(Security classification of title, body of abstract and indexing annotation must be entered when the overall report is classified)

1 ORIGINATING ACTIVITY (Corporate author) U. S. Army Electronics Command Ft. Monmouth, New Jersey	2a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED 2b. GROUP

3 REPORT TITLE

WHITE SANDS MISSILE RANGE CLIMATE CALENDAR

4 DESCRIPTIVE NOTES (Type of report and inclusive dates)

5 AUTHOR(S) (First name, middle initial, last name)

Taft, Paul H.

6 REPORT DATE April 1969	7a. TOTAL NO. OF PAGES 37	7b. NO. OF REFS 9
8a. CONTRACT OR GRANT NO. b. PROJECT NO. c. DA Task 1T665702D127-02 d.	9a. ORIGINATOR'S REPORT NUMBER(S) DR-421 9b. OTHER REPORT NO(S) (Any other numbers that may be assigned this report)	

10. DISTRIBUTION STATEMENT [redacted]

Qualified requesters may obtain copies of this report from DDC.

11. SUPPLEMENTARY NOTES	12. SPONSORING MILITARY ACTIVITY U. S. Army Electronics Command Atmospheric Sciences Laboratory White Sands Missile Range, New Mexico

13 ABSTRACT This is the fourth edition of the White Sands Missile Range Climate Calendar, which was first published in May, 1963.

Mean daily maximum and minimum temperatures, and extreme temperatures for the period of record (1950-1968) are tabulated in calendar form for "A" Station, the weather center located at Headquarters, White Sands Missile Range, New Mexico. Averages of temperature, relative humidity, wind and cloudiness are included for each month, as well as maximum 24-hour and monthly rainfall.

Supplementary tables give monthly, seasonal and annual values of maximum winds, degree days, solar radiation, means and extremes of station pressure, the greatest monthly and single-storm snowfall, and the average six-hourly temperatures and relative humidities. Also included are the average number of days with the occurrence of precipitation, distant lightning, thunderstorms and visibility restrictions, as well as a summary of weather extremes for the State of New Mexico. Presented in graph form are weekly means of maximum and minimum temperatures, weekly values of precipitation, mean hourly and monthly wind speeds with prevailing directions, and average hourly variations from the mean station pressure.

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14. KEY WORDS	LINK A		LINK B		LINK C	
	ROLE	WT	ROLE	WT	ROLE	WT
1. Meteorology						
2. Climatology						
3. Means and Extremes						